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**STUDY OF ALERTING AND LOCATING
TECHNIQUES AND THEIR IMPACT
(SALTTI)**

HIGH SEAS COST-BENEFIT ANALYSES.
VOLUME 2. SYSTEMS AND COST-BENEFIT METHODOLOGY.

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APPENDIX A - HIGH SEAS CANDIDATE SYSTEMS

APPENDIX A

CANDIDATE SYSTEMS, HIGH SEAS

<u>Alerting</u>		<u>Coastal Counterpart</u>
1B1A	Installed 500 kHz	(1A2A)
1B1B	Installed 2182 kHz	(1A2B)
1B1C	Installed L-Band SATCOM	
1B1D	Installed HF	
1B2A	EPIRB 2182 kHz	(1A3G)
1B2B	EPIRB 121.5/243 MHz, Aircraft Overflight	(1A3D)
1B2C	EPIRB 121.5/243 MHz, Orbiting Satellite	(1A3E)
1B2D	EPIRB 406 MHz Geostationary Satellite	(1A3F)
1B3A	Survival 500 kHz	(1A4A)
1B3B	Survival 2182 kHz	(1A4B)
1B3C	Survival 8364 kHz	
1B4A	Combination Survival Transmitting 500, 2182 and 8364 kHz	
<u>Locating</u>		
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2B1B	Installed 2182 kHz, Location Reported	(2A1B)
2B1C	Installed L-Band, Location Reported	
2B1D	Installed HF, Location Reported	
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2B2B	Installed HF, Shore DF Locates	

<u>Locating (Cont'd)</u>		<u>Coastal Counterpart</u>
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2B3B	Installed 2182 kHz, Aircraft DF/Homing	(2A3B)
2B3C	Installed 156.8 MHz, Aircraft DF/Homing	(2A3C)
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2B4A	Installed 500 kHz, Ship DF/Homing	(2A4A)
2B4B	Installed 2182 kHz, Ship DF/Homing	(2A4B)
2B4C	Installed 156.8 MHz Ship DF/Homing	(2A4C)
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2B5B	EPIRB 2182 kHz, Aircraft DF/Homing	(2A7B)
2B5C	EPIRB UHF-AM, Aircraft DF/Homing	(2A7C)
2B5D	EPIRB 121.5/243 MHz, Aircraft DF/Homing	(2A7D)
2B5E	EPIRB VHF-AM, Aircraft DF/Homing	(2A7E)
2B6A	EPIRB VHF-FM, Ship DF/Homing	(2A8A)
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2B6C	EPIRB UHF-AM, Ship DF/Homing	(2A8C)
2B6D	EPIRB 121.5/243 MHz, Ship DF/Homing	(2A8D)
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2B7C	EPIRB 406 MHz, Retransmit NAVAID to Orbiting Satellite	
2B8A	Survival 500 kHz, Shore DF	(2A10A)
2B8B	Survival 8364 kHz, Shore DF	

<u>Locating (Cont'd)</u>		<u>Coastal Counterpart</u>
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3B6A	EPIRB 121.5/243 MHz Alerts by Overflight, Located Ship DF/Homing	(3A8A)
3B6B	EPIRB 2182 Alerts Ship in Range, Located Ship DF/Homing	(3A8B)
3B6C	EPIRB Combination Alerts by Satellite, Located by 2182 kHz DF/Homing	(3A8C)
3B6D	EPIRB Combination Alerts by Satellite, Located by 121.5/243 MHz DF/Homing	(3A8D)
3B6E	EPIRB Combination Alerts by Satellite, Located by VHF-FM DF/Homing	(3A8E)
3B6F	EPIRB Combination Alerts by Satellite, Located by UHF-AM DF/Homing	(3A8F)
3B6G	EPIRB Combination Alerts by Satellite, Located by VHF-AM DF/Homing	(3A8G)
3B7A	Survival 500 kHz Alerts, Shore DF Locates	(3A9A)
3B7B	Survival 8364 kHz Alerts, Shore DF Locates	
3B8A	Survival 500 kHz Alerts, Aircraft DF Locates	(3A10A)
3B8B	Survival 2182 kHz Alerts, Aircraft DF Locates	(3A10B)
3B8C	Survival 8364 kHz Alerts, Aircraft DF Locates	

<u>Alerting and Locating (Cont'd)</u>		<u>Coastal Counterpart</u>
3B9A	Survival 500 kHz Alerts, Ship DF Locates	(3A11A)
3B9B	Survival 2182 kHz Alerts, Ship DF Locates	(3A11B)
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APPENDIX B - COST-BENEFIT METHODOLOGY

B.1 GENERAL

This appendix describes the cost-benefit model used for evaluation of alternative alerting and/or locating (A/L) systems in terms of the equations representing the different cost components and benefits, together with the rationale, input parameters and format of the results. In addition, the procedure for computing the system effectiveness in terms of effectiveness factors is described. The cost-benefit model for the SALTII High Seas systems follows the same basic procedures as the model for the Coastal Area systems.

B.1.1 Evaluation Criteria

The basic evaluation criteria used to compare alternative systems are the system costs and the benefits which may be derived. There are basically two methods by which costs and benefits may be used for computing the figures of merit (FOM) that are used for comparing alternative systems. In the first method, benefits are divided by system costs to obtain the benefit:cost ratio (benefit:cost) as the FOM. In the second method, costs are subtracted from the benefits to obtain the net benefits as the FOM. The systems are then ranked in order of preference for each FOM.

The estimated system costs cover a ten-year life cycle and include government initial acquisition and annual operation and maintenance costs, cost of SAR missions, and the users' initial acquisition and annual operation and maintenance cost. The estimated system benefits are the expected savings from prevention of fatalities and property damage due to the use of the A/L system.

B.1.2 Basic Assumptions

- All costs and benefits are computed over a 10-year system life cycle and are expressed as the present value (PV) in terms of 1974 dollars. The computed PV is based on a 10 percent interest rate.

- Cost and benefit input values are generally based on 1974 data (the base for the Coastal Area Study data). New data is converted to the 1974 base. The assumed annual escalation factors used to convert to 1974 dollars are derived from the Consumer Price Index. The estimated escalation factor for converting from 1974 to 1976 dollars is 15 percent.

<u>Year</u>	<u>CPI</u>	<u>Percent Increase</u>
1974	147.7	-
1975	161.2	9%
1976 (June)	170.1	5.5%

- Escalation factors are not used to estimate future year costs or benefits. However, future year costs and benefits are based on growth in population and SAR incidents.
- Specific assumptions about the population and growth, the A/L systems, and the SAR region geography are exemplified in the values of the various input parameters that are given in this appendix.

B.2 MODEL PARAMETERS

B.2.1 Population and Growth Parameters

The values for the population and growth parameters are generally derived from the Coastal Area Study. These parameters, together with the values and the variable name, are identified in Table B-1.

B.2.2 System Parameters

The basic system parameter cost data for the High Seas systems was used for the Coastal Area Study except for the following systems included in

Table B-1. Population and Growth Parameters

Population Data				
Assumed Annual Rate of Increase of Ships/Vessels (SALTTI Coastal Area Study, Table 2-2)				
Commercial Ships	RVC =	4%		
Fishing Vessels	RVF =	0.4%		
Total Ships/Vessels at Sea in SAR Regions (1975)				
	<u>Atlantic</u>	<u>Pacific</u>	<u>Total</u>	
Commercial Ships	3876	2764	6640=TASC	
Fishing Vessels	4779	3021	7800=TASF	
Assumed Ship/Vessel Speeds				
Commercial Ships	VELC =	20 knots		
Fishing Vessels	VELF =	15 knots		
Assumed Total Ships/Vessels				
	<u>Atlantic</u>	<u>Pacific</u>	<u>% at Sea</u>	<u>Total</u>
Commercial Ships	7800	5300	69	18,985=TCS
Fishing Vessels	4779	3021	78	10,000=TFV
SAR Caseload Data (SALTTI Coastal Area Study, Table 2-4)				
Base Caseload (1974)				
Commercial Ships	BC =	2240		
Fishing Vessels	BF =	5750		
Assumed Annual Rate of Increase of SAR Cases				
Commercial Ships	RC =	-1.87%		
Fishing Vessels	RF =	2.06%		
Percent of SAR Cases That Occur Within 25 Miles of Shore				
Commercial Ships	PCC =	80%		
Fishing Vessels	PCF =	89.23%		
Benefits Parameter Values (SALTTI Coastal Area Study, Table 2-5)				
Rate of Fatalities, Fatalities per SAR Case				
Commercial Ships	RCF =	0.085159		
Fishing Vessels	RFF =	0.022086		
Saving, Dollars per Fatality	SF =	\$250,000		
Saving, Property Damage, Dollars per SAR Case				
Commercial Ships	SPC =	\$26,415		
Fishing Vessels	SPF =	\$ 8,612		

list of High Seas systems (Appendix A) but which were not considered in the Coastal Area Study:

- All type HF systems
- All type L-Band SATCOM systems
- All Survival 8364-kHz systems
- Survival combination 500/2182/8364 kHz alerting only
- EPIRB 406 MHz, retransmitting NAVAID information to orbiting satellite.

The basic cost data includes: Government Initial Acquisition and Installation Cost (GACI), Government Annual Recurring Operation and Maintenance Cost (GAOM), and unit cost (UUC) for acquisition by the user. These basic costs for the Coastal Area systems were furnished by the Government and are contained on data sheets included as Enclosures to Attachment 3 of this appendix. Data sheets providing contractor estimates for the basic cost data for the listed systems are also included in Attachment 3.

Each A/L system has values for a series of parameters necessary to completely describe the system with reference to this cost-benefit model. In the equations in this appendix, "j" generically refers to the jth A/L system. The system parameters are identified and defined in Table B-2 and the values are listed in tabular form in Attachment 1.

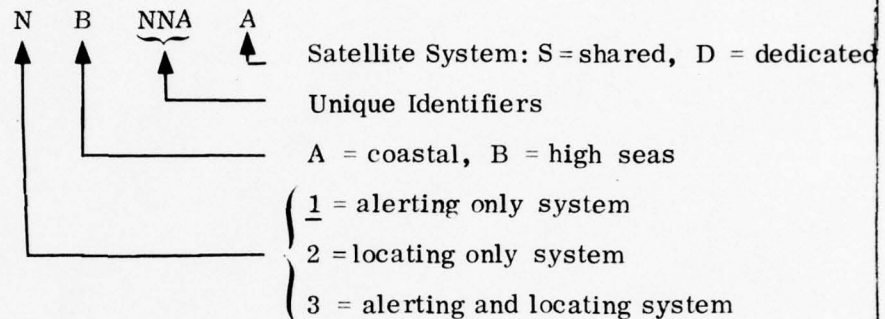
B.2.3 Geographic Parameters

In the evaluation of the High Seas systems, the geography of the SAR region impacts the system effectiveness as well as the expected costs and benefits. The basic model area for the cost-benefit methodology is the 15 by 15 degree geographic grid square. The grid parameters include geographic data, user distribution data, and A/L device effectiveness data. In the equations

Table B-2. System Parameter Definitions

SER - Sequence number of system

SALTTI - SALTTI Identification Number



GACI - Government initial Acquisition and Installation Cost (AC&I)

GAOM - Government annual recurring operation and maintenance (O&M) costs

UUC - Unit acquisition cost to user

QUAN - Quantity of units on which a single manufacturer bases unit cost

LF - Value of learning factor for manufacture of A/L device

NM - Number of manufacturers which can be expected to produce units of A/L device for market

ARG - Transmission range in nautical miles of A/L device to alert applicable platforms of opportunity

LRG - Maximum expected range in nautical miles at which DF/Homing equipment becomes effective

CM - Total number of commercial ships which would logically be equipped with and provide potential market for A/L device

FM - Total number of fishing vessels which would logically be equipped with and provide potential market for A/L device

CUP - Percentage of commercial ships that maintain a watch on appropriate radio frequency of A/L device

FUP - Percentage of fishing vessels that maintain a watch on appropriate radio frequency of A/L device

Table B-2. System Parameter Definitions (Cont'd)

AUP	- Percentage of aircraft that monitor appropriate A/L device radio frequency
ET	- Time availability of detecting/locating facility/platform; estimated at 0.996 for manned terrestrial systems. Value of 1.000 is implied for automatic monitoring equipment found on passing ships and aircraft overflights and is also used for satellite systems which cover area at least once a day
EA	- Equipment availability in detecting/locating facility/platform; established as 0.995 for all systems
ES1	- Probability of success for voice/record communications within signal environment based upon monitoring experience. Simulates recognition of emergency signals among those random background signals by passing platforms of opportunity and SRUs in locating mode
ES2	- Probability of success for voice/record alerting communications within the signal environment to shore stations. Based upon monitoring experience and simulates recognition of an emergency signal among those random background signals at shore stations
ES3	- Probability of success of alerting communication within signal environment to aircraft overflights. Based upon monitoring experience and simulates recognition of emergency signals among those random background signals received by monitoring aircraft
<p>Note: For each type of signal effectiveness parameters, ES1, ES2, and ES3, background signal environment is composed of random individual callers whose call durations are distributed about an assumed average, and whose signal strengths by distance are related to geographical distribution. Multiple EPIRB effectiveness concerns probability of failure in detecting or locating an individual EPIRB signal among several. This probability is related to time domain and duty cycles,</p>	

Table B-2. System Parameter Definitions (Cont'd)

regardless of radio frequency. It is therefore pertinent to all EPIRB type systems. Hypothesis is that an EPIRB system can cope with individual cases separated in time, but its real test is a capability to cope with several that may result from a widespread storm front.

- EP - Propagational capability to provide adequate signal throughout geographical zone and is a measure of percent of geography afforded adequate coverage. Values listed in Attachment 1 serve two purposes. For values less than or equal to 1.000, value represents probability that signal will be received by system. For values greater than 1.000, value represents a code that calls in propagational probabilities for each of the geographic grid squares, EP1, EP2, EP3, or EP4 as described under geographic parameters in Paragraph B.2.3
- EL - Probability of providing adequate location for SAR. Derived from area of uncertainty characteristic to system. Determination of the values is explained in detail in Section 7.

shown in this appendix, "m" generically refers to the mth grid. The grid parameters are identified and defined in Table B-3 and the values are listed in tabular form in Attachment 2.

Table B-3. Grid Parameter Definitions

SN -	Sequence number of 15 by 15 degree grids in Atlantic and Pacific Ocean SAR areas of responsibility												
ID -	Alphabetic pair which identifies 15 by 15 degree grid												
AREA -	Ocean Area of the 15 by 15 degree grid or portion thereof in square nautical miles. General equation for computing area in square nautical miles of a portion of the earths surface bounded by given values of latitude and longitude is:												
	$A = \frac{360}{2 \pi} * 60^2 * 8 \left \text{long W} - \text{long E} \right * \left \sin \text{lat N} - \sin \text{lat S} \right $												
DIST -	Great circle distance in nautical miles to nearest SAR facility Distance from Point A (lat A, long A) to Point B (lat B, long B) is:												
	$D=60 * \arccos \left[\sin \text{lat A} * \sin \text{lat B} + \cos \text{lat A} * \sin \text{lat B} * \left \text{long A} - \text{long B} \right \right]$												
L -	Location of nearest SAR facility												
	<table> <tr> <th><u>Atlantic</u></th><th><u>Pacific</u></th></tr> <tr> <td>B - Boston</td><td>A - Adak</td></tr> <tr> <td>M - Miami</td><td>G - Guam</td></tr> <tr> <td>O - New Orleans</td><td>H - Honolulu</td></tr> <tr> <td>P - Portsmouth</td><td>F - San Francisco</td></tr> <tr> <td>S - San Juan</td><td></td></tr> </table>	<u>Atlantic</u>	<u>Pacific</u>	B - Boston	A - Adak	M - Miami	G - Guam	O - New Orleans	H - Honolulu	P - Portsmouth	F - San Francisco	S - San Juan	
<u>Atlantic</u>	<u>Pacific</u>												
B - Boston	A - Adak												
M - Miami	G - Guam												
O - New Orleans	H - Honolulu												
P - Portsmouth	F - San Francisco												
S - San Juan													
CS -	Expected number of commercial ships in grid square.												
FV -	Expected number of fishing vessels in grid square.												
ACT -	Number of designated aircraft tracks across the grid square.												

Table B-3. Grid Parameter Definitions (Cont'd)

EP1 -	Expected propagational capability for RF signals from installed 500-kHz equipment on ships in designated grid square to nearest shore station
EP2 -	Expected propagational capability for RF signals from installed 2182-kHz equipment on ships and vessels in designated grid square to nearest shore station
EP3 -	Expected propagational capability for RF signals from installed HF equipment on ships in designated grid square to nearest shore station.
EP4 -	Expected propagational capability for RF signals from 8364 kHz survival equipment in designated grid square to nearest shore station.

B.2.4 SAR Resource Parameters

The estimation of annual SAR costs requires basic cost and performance data for the primary Search and Rescue Units (SRUs). Table B-4 presents the required data.

TABLE B-4. SRU COST AND PERFORMANCE DATA

Air SRUs	Speed (Knots)	Range (Hours)	Range (n. Miles)	Fuel Cons. (gal/hr)	Cost (\$/hour)
1 HU 16	140	13	1820	86	36.12
2 HH52	85	2.75	234	67	28.14
3 HH3	110	5	550	200	84.00
4 HC130	250	8	2000	833	349.96
Surface SRUs					
1 PB	16	94	1500	16	6.40
2 MEC	15	333	5000	77	30.80
3 HEC	25	320	8000	157	62.80

The speed of the SRU is given in knots and is the expected speed for transit to and from the search area as well as during the search. The range in hours is the effective time that the SRU can operate - the combined transit and search time - and does not include enroute reserve, approach and landing reserve, alternate reserve, holding reserve, or false sighting reserve. For air SRUs, the range was given in hours and the range in miles was derived by multiplying the given range in hours by the speed. For surface SRUs, the range was given in nautical miles and the endurance time was derived by dividing the given range by the speed. The fuel consumption was given. The operating cost per hour was derived by multiplying the fuel consumption in gallons per hour by fuel costs, \$0.40 for surface SRUs and \$0.42 for air SRUs.

B.2.5 Computed Parameters

In the development of the model equations, some specific parameters are required. These parameters are derived from appropriate combinations of the input parameters and are identified and defined in the following paragraph.

B.2.5.1 Percent Participation

Percent participation of ships/vessels identifies the portion of the total fleet that is equipped with each A/L device.

$PAC(j) = CM(j)/TCS$, percent participation of commercial ships

$PAF(j) = FM(j)/TFV$, percent participation of fishing vessels.

B.2.5.2 SAR Cases per Ship/Vessel

The expected number of SAR cases per ship/vessel at sea will vary annually. The estimate is based on the number of SAR cases occurring more than 25 miles from shore, the estimated number of ships/vessels at sea in the SAR regions in 1975, the annual rate of change of SAR cases and the growth rate of ship/vessel population.

Expected number of SAR cases per commercial ship:

$$SPSC(i) = BC * (1 + RC)^i * (1 - PCC) / (TASC * (1 + RVC)^{i-1})$$

Expected number of SAR cases per fishing vessel:

$$SPVF(i) = BF * (1 + RF)^i * (1 - PCF) / (TASF * (1 + RVF)^{i-1})$$

B.2.5.3 SAR Cases

The number of SAR cases or incidents that is expected to occur in the i th year and the m th grid for both commercial ships and fishing vessels is estimated by, respectively:

$$\begin{aligned} SARC(i, m) &= CS(m) * (1 + RVC)^{i-1} * SPSC(i) \\ &= CS(m) * BC * (1 + RC)^i * (1 - PCC) / TASC \end{aligned}$$

$$\begin{aligned} SARF(i, m) &= FV(m) * (1 + RVF)^{i-1} * SPVF(i) \\ &= FV(m) * BF * (1 + RF)^i * (1 - PCF) / TASF \end{aligned}$$

B.3 COSTS

The total system cost for the 10-year life cycle is derived from the following cost components:

$$TC1 = GACI + PGOM + UACI + PUOM + PSAR$$

where:

GACI = Government initial AC&I cost

PGOM = Present value of Government annual recurring O&M costs

UACI = Present value of user initial AC&I costs

PUOM = Present value of user annual recurring O&M cost

PSAR = Present value of SAR missions.

The cost data presentation for each system will itemize the costs in the following manner displaying costs broken down by Atlantic and Pacific, with and without SAR costs.

COST: (\$000)	AC&I	PV O & E	TOTAL
GOVT:	\$GACI	\$PGOM	\$TGC
ATL	\$GACIA	\$PGOMA	\$TGCA
PAC	\$GACIP	\$PGOMP	\$TGCP
SAR:		\$PSAR	\$PSAR
ATL		\$PSARA	\$PSARA
PAC		\$PSARP	\$PSARP
COMM:	\$CUACI	\$PCUOM	\$TCU
ATL	\$CUACIA	\$PCUOMA	\$TCUA
PAC	\$CUACIP	\$PCUOMP	\$TCUP
FISH:	\$FUACI	\$PFUOM	\$TFU
ATL	\$FUACIA	\$PFUOMA	\$TFUA
PAC	\$FUACIP	\$PFUOMP	\$TFUP
TOTAL: w/SAR	\$ACI	\$PVOM1	\$TC1
ATL	\$ACIA	\$PVOM1A	\$TC1A
PAC	\$ACIP	\$PVOM1P	\$TC1P
TOTAL: wo/SAR	\$ACI	\$PVOM2	\$TC2
ATL	\$ACIA	\$PVOM2A	\$TC2A
PAC	\$ACIP	\$PVOM2P	\$TC2P

B.3.1 Government Costs

There are four shore stations listed in the Pacific SAR region and five in the Atlantic SAR region. Therefore, Government costs are allocated 5/9 to Atlantic and 4/9 to Pacific.

B.3.1.1 Acquisition and Installation Cost

The types of initial acquisition costs are different for the terrestrial and satellite systems. The initial acquisition and installation costs data for the terrestrial systems includes:

- Type and number of installed electronic units
- Unit and installation costs
- Spare equipment, modules and parts costs
- One time costs for test equipment, documentation and training.

The initial acquisition and installation cost data for the satellite systems included:

- Number of satellites and on-orbit spares required
- Expected life of satellites
- Satellite Costs; Unit, Launch, RDT&E
- Ground Stations; Number Required, Unit cost, RDT&E cost

The detailed costs for each system are itemized in the enclosures to Attachment 3 to this appendix.

B.3.1.2 Annual Recurring O&M Cost

The types of annual recurring O&M costs for the terrestrial (T) and satellite systems (S) are similar as follows:

	<u>System</u>	
• Annual (Maintenance Cost) (10% of unit cost)	T	-
• Number of Personnel at \$10,200 per annum	T	S
• Recurring Training Cost	T	-
• Cost of Landlines	T	S
• Ground Station O&E	-	S

The present value of the Government's annual O&M cost is:

$$PGOM = \sum_{i=1}^{10} \frac{GAOM}{(1 + INT)^i}$$

B.3.2 SAR Cost

The SAR cost includes only the cost of fuel for aircraft and cutter/boat deployed on an SAR mission. It does not include the "SAR Impact Cost" that represents the acquisition and operation of additional SAR resources due to the impact of recreational boats on SAR resources which was included in the costs for the Coastal Area Study.

The estimated annual SAR cost for year (i) in grid (m) is computed by:

$$\text{SARCST}(i, m) = [\text{SARC}(i, m) + \text{SARF}(i, m)] * \text{SRUCST}(m)$$

where SRUCST(m) is the cost to deploy SRUs to grid square m and to conduct a search; and SARC(i, m) and SARF(i, m) are the expected number of SAR incidents involving commercial ships and fishing vessels, respectively, during year i in grid square m.

The value of SRUCST(m) will depend on the type of units deployed, the location effectiveness of the system (which determines required search time) and the distance to the grid square search area.

The present value of the SAR costs over the 10-year life cycle is:

$$\begin{aligned} \text{PSAR} &= \sum_{i=1}^{10} (1 + \text{INT})^{-i} \sum_{m=1}^M \text{SARCST}(i, m) \\ &= \sum_{i=1}^{10} (1 + \text{INT})^{-i} \sum_{m=1}^M [\text{SARC}(i, m) + \text{SARF}(i, m)] * \text{SRUCST}(m) \\ &= \sum_{i=1}^{10} \frac{\text{BC} * (1 + \text{RC})^i * (1 - \text{PCC})}{(1 + \text{INT})^i * \text{TASC}} \sum_{m=1}^M \text{CS}(m) * \text{SRUCST}(m) \\ &\quad + \sum_{i=1}^{10} \frac{\text{BF} * (1 + \text{RF})^i * (1 - \text{PCF})}{(1 + \text{INT})^i * \text{TASF}} \sum_{m=1}^M \text{FV}(m) * \text{SRUCST}(m) \end{aligned}$$

The computation of SRUCST(m) depends on the location effectiveness of the system, the SRUs deployed and the search time required. The first step is to determine the radius of uncertainty of the search area. The radius of uncertainty is determined by the equation:

$$RU = 256.6316 * \exp \left[- 2 * EVL^2 \right] - 74.0781$$

which approximates the curve shown in Figure 7-1, where EVL is the system location effectiveness. The square area of uncertainty is then determined by:

$$A = (2 * RU)^2$$

The search time is then determined by means of the equation:

$$A = V * N * S * T$$

where: A = Area of search
V = Speed of SRU
N = Number of SRUs
S = Track spacing
T = Search time

The track spacing is computed from the coverage factor C, and the sweep width W:

$$S = W / C$$

The sweep width W is $2 * LRG$, where LRG is the expected value of the detection range and the coverage factor = 1.6. The coverage factor of 1.6 was selected as the value which gives a 0.95 probability of detection on the first search (Ref: Figure 8-65, National SAR Manual, CG308). From the above equations, the search time, TS, is expressed as:

$$TS = \frac{(2 * RU)^2 * 1.6}{V * N * 2 * LRG}$$

The transit time, TT, to grid square m is determined by:

$$TT = \frac{2 * \text{Dist (m)}}{V}$$

and the total time, T, is the sum of transit and search times.

$$T = TS + TT$$

The next step is to determine the number and type of SRUs to be deployed. To be eligible for deployment a SRU must be able to reach the search area and still provide a minimum search time of 2 hours for air SRUs and 24 hours for surface SRUs. Initially the number of SRUs to be deployed is 1, but is increased until a number is determined such that the search mission can be completed from eligible resources.

The following example calculations will illustrate the procedure.

Assume EVL = .3953 and LRG = 32

DIST(m) = 1674 miles

The required SRU resource data is:

Air	Speed VA	Range RHA	Cost CA
1 HU 16	140	13	36.12
2 HH52	85	2.75	28.14
3 HH3	110	5	84.00
4 HC130	250	8	349.86
Surface	VS	RHA	CS
1 PB	16	94	6.40
2 MEC	15	333	30.80
3 HEC	25	320	62.80

$$RU = 256.6316 \exp[-2 * EVL^2] - 74.0781 = 63.28 \text{ n. miles}$$

$$A = (2 * RU)^2 = 16017.56 \text{ square n. miles}$$

$$S = 2 * LRG/1.6 = 40$$

Then, for one air search unit:

	HU16	HH52	HH3	HC130
TS =	2.86	4.71	3.64	1.60
TT =	<u>23.91</u>	<u>39.39</u>	<u>30.44</u>	<u>13.39</u>
T =	26.77	44.10	34.08	14.99

The total time computed is greater than the RHA value for each air SRU.

Further, the condition

$$RHA \geq TT + 2$$

is not satisfied. Therefore none of the air SRUs are eligible for deployment to the search area.

For one surface search unit:

	PB	WMEC	WHEC
TS=	25.03	26.70	16.02
TT=	<u>209.25</u>	<u>223.20</u>	<u>133.92</u>
T=	234.28	249.90	149.94

The total time computed for the PB 234.23 hours is greater than RHS=94; therefore the PB is not selected. However, the total time for the WMEC 249.90 is less than RHS=333 hours and therefore the WMEC is selected for deployment and only one is required. The SRUCST in this case is:

$$\begin{aligned} \text{SRUCST} &= 249.90 \times 30.80 \\ &= \$7697 \end{aligned}$$

If the condition:

$$RHS \geq TT + 24$$

was satisfied but because of search time the total time constraint could not be

met, then the number of SRU would have been increased by one and the total time recomputed until $TT + 24 \leq \text{RHS}$ for some SRU.

B.3.3 User Costs

B.3.3.1 Initial Costs

The user initial AC&I costs (the number of units acquired annually times the current unit cost $UC(i)$) are computed on an annual basis and the total user initial cost is the sum of the present values of the annual initial AC&I cost. Each year, additional units are purchased because of the population growth and the unit cost changes because of the learning curve effect.

The number of A/L devices acquired each year is based on the potential market and rate of growth and is computed as follows:

Number of units in service in i th year,

$$QC(i) = CM * (1 + RVC)^{i-1}, \text{ Commercial ships}$$

$$QF(i) = FM * (1 + RVF)^{i-1}, \text{ Fishing vessels}$$

Number of units acquired in i th year,

$$QAC(1) = QC(1)$$

$$QAC(i > 1) = QC(i) - QC(i-1) \quad \text{Commercial ships}$$

$$QAF(1) = QF(1)$$

$$QAF(i > 1) = QF(i) - QF(i-1) \quad \text{Fishing vessels}$$

The unit cost of the A/L device in the i th year is determined by the total number produced (in service), number of manufacturers, and learning factor.

$$UC(i) = UUC \left(\frac{QC(i) + QF(i)}{QUAN * NM} \right)^{\ln LF / \ln 2}$$

The total annual initial cost by industry is obtained by multiplying the units acquired by the unit acquisition cost:

$$ACUAC(i) = QAC(i) * UC(i) \quad \text{Commercial ships}$$

$$AFUAC(i) = QAF(i) * UC(i) \quad \text{Fishing vessels}$$

The present value of the user initial AC&I costs are then computed by:

$$CUACI = \sum_{i=1}^{10} \frac{ACUAC(i)}{(1 + INT)^i} \quad \text{Commercial ships}$$

$$FUACI = \sum_{i=1}^{10} \frac{AFUAC(i)}{(1 + INT)^i} \quad \text{Fishing vessels}$$

B.3.3.2 Annual Recurring O&M Costs

The unit annual O&M cost is estimated to be 10 percent of the unit acquisition cost; therefore, the total annual O&M cost is 10 percent of the cumulative investment cost.

$$AOMC(I) = 0.1 * SACUAC(I) = 0.1 * \sum_{i=1}^I ACUAC(i) \quad \text{Commercial ships}$$

$$AOMF(I) = 0.1 * SAFUAC(I) = 0.1 * \sum_{i=1}^I AFUAC(i) \quad \text{Fishing vessels}$$

The present value of the annual O&M costs are then computed by:

$$PCUOM = \sum_{i=1}^{10} \frac{AOMC(i)}{(1 + INT)^i} \quad \text{Commercial ships}$$

$$PFUOM = \sum_{i=1}^{10} \frac{AOMF(i)}{(1 + INT)^i} \quad \text{Fishing vessels}$$

B.4 BENEFITS

The system benefits are the savings that accrue from the prevention of fatalities and property damage to commercial ships and fishing vessels due to the use of the A/L device. The benefits are initially computed for each year in each grid of the model. The benefit data presentation for each system will detail the benefits in the following manner.

<u>Benefits (\$000)</u>	<u>Fatalities</u>	<u>Prop. Damage</u>	<u>Total</u>
Comm	\$BFC	\$BPC	\$BCT
Atl	(\$BFCA)	(\$BPCA)	(\$BCTA)
Pac	(\$BFCP)	(\$BPCP)	(\$BCTP)
Fish	\$BFF	\$BPF	\$BFT
Atl	(\$BFFA)	(\$BPFA)	(\$BFTA)
Pac	(\$PFPP)	(\$BPFP)	(\$BFTP)
Total	\$BF	\$BP	\$BT
Atl	(\$BFA)	(\$BPA)	(\$BTA)
Pac	(\$BFP)	(\$BPP)	(\$BTP)

The definition of $EV(m)$, used in computing the expected value of benefits, is given in Paragraph B.5. $EV(m)$ is the computer overall system effectiveness in grid (m).

B.4.1 Savings, Fatalities

The computational procedure for the annual benefits resulting from savings due to reduction of fatalities for year (i) in grid (m) because of using an A/L device is, for commercial ships and fishing vessels, respectively:

$$BAFC(i, m) = SF * RFC * SARC(i, m) * F * PAC * EV(m)$$

$$BAFF(i, m) = SF * RFF * SARF(i, m) * F * PAF * EV(m)$$

The present value for the savings, due to prevention of fatalities, is:

$$BFC = \sum_{i=1}^{10} (1 + INT)^{-i} \sum_{l=1}^M BAFC(i, m)$$

PV of expected saving for commercial ships

$$BFF = \sum_{i=1}^{10} (1 + INT)^{-i} \sum_{m=1}^M BAFF(i, m)$$

PV of expected saving for fishing vessels:

B.4.2 Savings, Property, Damage

The computational procedure for the annual benefit resulting from savings due to prevention of property damage for year (i) in grid (l) because of using an A/L device is, for commercial ships and fishing vessels, respectively:

$$BAPC(i, m) = SPC * SARC(i, m) * F * PAC * EV(m)$$

$$BAPF(i, m) = SPF * SARF(i, m) * F * PAF * EV(m)$$

The present value for the savings due to reduction of property damage is:

$$BPC = \sum_{i=1}^{10} (1 + INT)^{-i} \sum_{m=1}^M BAFC(i, m)$$

PV of expected saving for commercial ships.

$$BPF = \sum_{i=1}^{10} (1 + INT)^{-i} \sum_{m=1}^M BAPF(i, m)$$

PV of expected saving for fishing vessels.

B.5 EFFECTIVENESS METHODOLOGY

This paragraph describes the procedure for computing the overall system effectiveness factor (EV) in terms of the individual effectiveness factors (EP, ET, EA, ES, EL). The basic procedure for evaluating the effectiveness of the High Seas systems follows the procedure developed for the effectiveness evaluation of the Coastal Area systems. A variation in the basic procedure is

required for effectiveness evaluation of each type of system; alerting only (AO), locating only (LO), and alerting and locating (AL). The system effectiveness describes the probability of accomplishing the system objective AO, LO, or AL, in terms of the probability of the signal propagation (EP), operator availability (ET), equipment availability (EA), signal environment (ES), and location (EL). There are two major differences between the methodology for the coastal area and the high seas. In the procedure for the high seas:

1. The values of EP are dependent on the geography - the distance between the area from where the signal originates and the station at which the signal is received. For the several different types of systems there are different values of EP for each designated grid area. It therefore follows that there will be different value of EV for each grid area, which is designated EV (m).
2. One of the major means of requesting assistance due to the occurrence of an event requiring SAR is the alerting of appropriate platforms of opportunity, passing ships or aircraft overflights. Therefore, the probability of accomplishing the system objective, AO, LO, AL, must consider communications with passing ships and aircraft overflights as well as communication with shore SAR stations.

B.5.1 Alerting Only (AO) Methodology

The probability of AO from grid (m) of only the shore SAR station is:

$$EAS(m) = EP(m) * ET * EA * ES$$

The probability of AO in grid (m) of platforms of opportunity (using auto alarm systems where the platforms of opportunity are commercial ships is:

$$EAPC(m) = 1 - \left(1 - EA * ES * \frac{\Pi (ARG)^2 + 2 * 24 ARG * VELC}{900^2} \right)^{NC(m)}$$

and where the platforms of opportunity are fishing vessels:

$$EAPF(m) = 1 - \left(1 - EA * ES * \frac{\Pi (ARG)^2 + 2 * 24 ARG * VELF}{900^2} \right)^{NF(m)}$$

The number of commercial ships and fishing vessels, respectively, in a model 900 by 900 nautical mile square that are using their unit in such a manner that they can pick up the distress signal (either auto alarm or listening/guarding frequency) is estimated by:

$$NC(m) = CS(m) * CUP * 900^2 / AREA(m) \text{ and}$$

$$NF(m) = FV(m) * FUP * 900^2 / AREA(m)$$

The probability of AO by aircraft overflights is:

$$EAPA(m) = 1 - (1 - EA * ES * 0.177\sqrt{FL})^{NA(m)}$$

where $NA(m) = ACT(m) * AUP$

which represent the number of aircraft tracks over grid square m that may detect aircraft alerting A/L devices.

The effectiveness of the alerting only system is then determined by:

$$EV(m) = \left[1 - (1 - EAS(m))(1 - EAPC(m))(1 - EAPF(m))(1 - EAPA(m)) \right] * 0.5$$

B.5.2 Locating Only (LO) Methodology

The probability of LO from the shore SAR station to grid (m) is:

$$ELS(m) = EP(m) * ET * EA * ES * EL$$

The probability of LO from platforms of opportunity in grid (m) where the platforms of opportunity are commercial ships is:

$$ELPC(m) = 1 - \left(1 - EA * ES * EL * \frac{\Pi (LRG)^2 + 2 * 24 * LRG * VELC}{900^2} \right)^{NC(m)}$$

and where the platforms of opportunity are fishing vessels:

$$ELPF(m) = 1 - \left(1 - EA * ES * EL * \frac{\Pi (LRG)^2 + 2 * 24 * LRG * VELF}{900^2} \right)^{NF(m)}$$

NC (m) and NF (m) are as defined in paragraph B.5.1. ELPC and ELPF represents the probability that the A/L device can be located by the DF/homing equipment aboard at least one platform of opportunity.

The probability of LO by aircraft overflights is:

$$ELPA(m) = 1 - (1 - EA * ES * 0.5 * 0.0177\sqrt{FL})^{NA(m)}$$

where NA(m) is as defined in paragraph B.5.1 and the factor 0.5 represents the aircraft overflight effectiveness as described in Section 5.

The effectiveness of the locating only system then is:

$$EV(m) = \left[1 - (1 - ELS(m))(1 - ELPC(m))(1 - ELPF(m))(1 - ELPA(m)) \right] * 0.5$$

B.5.3 Alerting and Locating (A/L) Methodology

The effectiveness of AL in grid (m) is the sum of the AO effectiveness by system (j) in grid (m), $EV_{ao}(j, m)$, and the LO effectiveness by system (k) in grid (m), $EV_{lo}(k, m)$.

$$EV_{al}(j, k, m) = EV_{ao}(j, m) + EV_{lo}(k, m)$$

ATTACHMENT 1
TO
APPENDIX B

SYSTEM PARAMETER VALUES

ATTACHMENT 1 TO APPENDIX B. SYSTEM PARAMETERS (COSTS \$ IN 1974 DOLLARS)									
SER	SALTTI	DESCRIPTION	\$ GACI	\$ UUC	QUAN	LF	NM	ARG	LRG
1	1R 1A	INST 500 KHZ	552000	17000	3651	82	5	270	270
2	1R 1B	INST 2182 KHZ	821000	1500	2821	85	10	70	70
3	1R 1C	INST L-BAND SATCOM	0	48300	200	82	3	0	999
4	1R 1D	INST HF	3600000	8520	225	82	5	25	25
5	1R 2A	EPIRB 121.5/243 KHZ	821000	3677000	3000	88	8	16	16
6	1R 2B	EPIRB 121.5/243/CO	0	4060000	200	3000	88	8	0
7	1R 2C	EPIRB 121.5/243 OS	25800000	267000	250	3000	88	8	0
8	1R 2D	EPIRB 121.5/243 OS	69480000	659000	250	3000	88	8	0
9	1R 2D5	EPIRB 406 KHZ GS	56830000	317000	250	3000	88	6	0
10	1R 2D6	EPIRB 406 KHZ GS	110460000	659000	250	3000	88	6	0
11	1R 3A	SUR 500 KHZ	552000	767200	3000	88	5	27	27
12	1R 3B	SUR 2182 KHZ	821000	3677000	900	3000	88	6	37
13	1R 3C	SUR 8364 KHZ	36000000	841000	900	3000	88	5	25
14	1R 4A	SUR 500/2182/8364 KHZ	36000000	841000	1300	3000	88	4	27
15	2R 1A	INST 500 RPT LOC	552000	767200	17000	3651	82	5	0
16	2R 1B	INST 2182 RPT LOC	821000	3677000	1500	2821	85	10	0
17	2R 1C	INST L-BAND RPT LOC	0	48300	200	82	3	0	999
18	2R 1D	INST HF RPT LOC	36000000	841000	8520	225	82	5	0
19	2R 2A	INST 500 SHORE DF	8060000	17000	3651	82	5	0	200
20	2R 2B	INST HF SHORE DF	12000000	8520	225	82	5	0	25
21	2R 3A	INST 500 A/C DF/H	1470000	70200	17000	3651	82	5	0
22	2R 3B	INST 2182 A/C DF/H	4015000	270200	1500	2821	85	10	0
23	2R 3C	INST 156.8 A/C DF/H	2527500	317600	400	3527	85	8	0
24	2R 3D	INST HF A/C DF/H	861600	59600	8520	225	82	5	0
25	2R 4A	INST 500 SHIP DF/H	8078566	474600	17000	3651	82	5	0
26	2R 4B	INST 2182 SHIP DF/H	6222344	421680	1500	2821	85	10	0
27	2R 4C	INST 156.8 SHIP DF/H	2406023	312792	400	3527	85	8	0
28	2R 4D	INST HF SHIP DF/H	2435200	259000	8520	225	82	5	0
29	2R 5A	EP VHF-FM A/C DF/H	2527500	317600	200	3000	88	4	0
30	2R 5B	EP 2182 A/C DF/H	1072200	83000	350	3000	88	4	0
31	2R 5C	EP UHF-AM A/C DF/H	2707500	317600	200	3000	88	4	0
32	2R 5D	EP 121.5/243 A/C DF/H	2707500	317600	225	3000	88	4	0
33	2R 5E	EP VHF-AM A/C DF/H	2707500	317600	200	3000	88	4	0
34	2R 6A	EP VHF-FM SHIP DF/H	2406023	312792	200	3000	88	4	0
35	2R 6B	EP 2182 SHIP DF/H	2228624	259000	350	3000	88	4	0
36	2R 6C	EP UHF-AM SHIP DF/H	342868	162200	200	3000	88	4	0
37	2R 6D	EP 121.5/243 SHIP DF/H	342868	162200	225	3000	88	4	0
38	2R 6E	EP VHF-AM SHIP DF/H	28380000	917000	225	3000	88	4	0
39	2R 7A5	EP 121.5/243 DOP OS	10300000	1059800	225	3000	88	4	0
40	2R 7A6	EP 121.5/243 DOP OS	61580000	1059800	225	3000	88	4	0
41	2R 7B5	EP 406 REAM NAVA GS	101978400	750	3000	88	6	0	999
42	2R 7B6	EP 406 REAM NAVA GS	101978400	750	3000	88	6	0	999
43	2R 7C5	EP 406 REAM NAVA GS	101978400	750	3000	88	6	0	999
44	2R 7C6	EP 406 REAM NAVA GS	101978400	750	3000	88	6	0	999
45	2R 8A	SUR 500 SHORE DF	12000000	806000	3000	88	5	0	20
46	2R 8B	SUR 8364 SHORE DF	0	10000	900	3000	88	5	0
47	2R 8C	SUR 500 A/C DF/H	1991800	70200	3000	88	5	0	32
48	2R 8D	SUR 2182 A/C DF/H	1991800	70200	3000	88	6	0	32
49	2R 8E	SUR 8364 A/C DF/H	1205200	46800	900	3000	88	5	0
50	2R 10A	SUR 500 SHIP DF/H	8078566	474600	3000	88	5	0	20
51	2R 10B	SUR 2182 SHIP DF/H	6222344	421680	900	3000	88	6	0
52	2R 10C	SUR 8364 SHIP DF/H	2435200	259000	900	3000	88	5	0
53	3R 1A	INST 500 A/R LOC	552000	767200	17000	3651	82	5	0
54	3R 1B	INST 2182 A/R LOC	821000	3677000	1500	2821	85	10	0
55	3R 1C	INST L-BAND A/R LOC	0	48300	200	82	3	0	999
56	3R 1D	INST HF A/R LOC	36000000	841000	8520	225	82	5	0
57	3R 2A	INST 500A-SHORE DFL	12000000	806000	3000	88	5	0	20
58	3R 2B	INST HF A-SHORE DFL	36000000	841000	8520	225	82	5	0
59	3R 3A	INST 500A-A/C DF/H	2022000	837400	17000	3651	82	5	0
60	3R 3B	INST 2182A-A/C DF/H	4836600	3947200	1500	2821	85	10	0
61	3R 3C	INST HF A-A/C DF/H	4461600	900600	8520	225	82	5	0

SER	SALTTI	DESCRIPTION	\$ GACI	\$ GAOM	\$ UUC	QUAN	LF	NM	ARG	LRG	CM	FM	CUP	FUP	AUP	ET	ES1	ES2	ES3	EP	EL	
62	38	4A INST 500A-SHIP DF/H	8630666	1241800	17000	3651	82	5	270	200	18985	10000	0	100	0	0	996	990	990	0	1500	950
63	38	4B INST 2182A-SHIP DF/H	7043344	4098680	1500	2821	85	10	70	60	18985	10000	0	0	0	0	996	907	907	0	2000	800
64	38	4C INST HF A-SHIP DF/H	6035200	1100000	850	225	82	5	25	25	18985	10000	0	0	0	0	996	968	968	0	3000	960
65	38	5A EPI21/243A0-ACDF/H	2707500	4377600	200	3000	88	8	16	16	18985	10000	0	0	100	996	944	0	0	0	280	950
66	38	5B EPI 2182A- A/C DF/H	1893200	3760000	350	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
67	38	5C ECAS- 2182 A/C DF/H	62652000	1000000	900	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
68	38	5D ECAS- 2182 A/C DF/H	114282000	1143000	900	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
69	38	5D ECAS-121/243AC DF/H	64288000	1235000	225	3000	88	5	0	30	18985	10000	0	0	100	1000	880	944	944	0	850	850
70	38	5D ECAS-121/243AC DF/H	115918000	1377000	225	3000	88	5	0	30	18985	10000	0	0	100	1000	914	944	944	0	850	850
71	38	5E ECAS-VHFM A/C DF/H	64108000	1235000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	914	944	944	0	850	850
72	38	5E ECAS-VHFM A/C DF/H	115738000	1377000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
73	38	5F ECAS-UHFAM A/C DF/H	64288000	1377000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
74	38	5F ECAS-UHFAM A/C DF/H	115918000	1377000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
75	38	5G ECAS-VHFM A/C DF/H	64288000	1377000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
76	38	5G ECAS-VHFM A/C DF/H	115918000	1377000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
77	38	6A EPI21/243A0-SP DF/H	342868	4222200	200	3000	88	8	16	16	18985	10000	0	0	100	996	944	944	0	0	200	700
78	38	6B EPI 2182A - SP DF/H	3049624	3936000	350	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
79	38	6C ECAS- 2182 SP DF/H	63809000	1176000	900	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
80	38	6D ECAS- 2182 SP DF/H	115439000	1319000	900	3000	88	5	37	32	18985	10000	0	0	100	1000	880	944	944	0	850	850
81	38	6D ECAS-121/243SP DF/H	61923000	1079000	225	3000	88	5	0	10	18985	10000	0	0	100	1000	750	944	944	0	850	850
82	38	6D ECAS-121/243SP DF/H	113553000	1222000	225	3000	88	5	25	25	18985	10000	0	0	100	1000	914	944	944	0	850	850
83	38	6E ECAS-VHFM A/C DF/H	63986000	1230000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	914	944	944	0	850	850
84	38	6E ECAS-VHFM A/C DF/H	115616000	1373000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
85	38	6F ECAS-UHF AM SP DF/H	61923000	1079000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
86	38	6D ECAS-UHF AM SP DF/H	113553000	1222000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
87	38	6G ECAS-VHFM A/C DF/H	61923000	1079000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
88	38	6D ECAS-VHFM A/C DF/H	113553000	1222000	425	3000	88	5	25	25	18985	10000	0	0	100	1000	990	944	944	0	850	850
89	38	7A SUP 500A-SHORE DF L	1200000	806000	3000	3651	85	5	27	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
90	38	7B SUP364A-SHORE DF L	3500000	841000	900	3000	88	5	25	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
91	38	8A SUP 500A- A/C DF/H	2543800	837400	3000	3651	85	5	27	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
92	38	8B SUP 2182A- A/C DF/H	2812800	3747200	900	3000	88	6	37	32	18985	10000	0	0	0	0	996	968	968	0	4000	650
93	38	8C SUP 8364A- A/C DF/H	4805200	887800	900	3000	88	5	27	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
94	38	9A SUP 500A- SP DF/H	8630666	1241800	3000	3651	85	5	27	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
95	38	9A SUP 2182A- SP DF/H	7043344	4098680	900	3000	88	6	37	32	18985	10000	0	0	0	0	996	968	968	0	4000	650
96	38	9C SUP 8364A- SP DF/H	6035200	1100000	900	3000	88	5	25	20	18985	10000	0	0	0	0	996	968	968	0	4000	650
97	38	10AS EPI21/243/406A-L005	17392000	2174000	250	3000	88	8	0	999	18985	10000	0	0	0	0	996	968	968	0	4000	650

ATTACHMENT 2

TO

APPENDIX B

GEOGRAPHIC PARAMETER VALUES

(15) 46 X

ATTACHMENT 2 TO APPENDIX H, GEOGRAPHIC PARAMETER VALUES

500K 2142 HF R364
INST INST INST SURV

ATLANTIC SAR REGION

SN	ID	AREA	DIST	L	CS	FV	ACT	EP1	EP2	EP3	EP4
1	FH	217239	324	O	115	1155	3	820	010	970	740
2	GG	131759	750	S	70	105	3	100	010	950	860
3	GH	621840	120	M	695	1120	10	950	250	980	820
4	GJ	75881	264	P	132	218	4	870	100	980	740
5	HG	254733	367	S	144	230	2	780	000	970	740
6	HH	724755	255	S	693	33	8	890	010	980	740
7	HJ	574449	310	H	659	1226	16	840	000	980	860
8	HK	30392	543	H	49	40	6	340	000	940	850
9	HL	62316	1259	H	3	26	0	010	000	900	840
10	JG	307437	864	S	69	58	0	040	000	940	840
11	JH	746207	779	S	276	17	0	050	010	950	820
12	JJ	640783	882	H	422	100	5	010	000	940	840
13	JK	376135	967	H	148	296	8	000	000	930	860
14	KG	87839	1692	S	9	27	0	000	000	850	680
15	KH	291639	1349	S	66	100	0	000	000	890	830
16	KJ	213594	1324	H	169	10	3	000	000	890	830
17	KK	491690	1475	H	157	18	8	000	000	870	790

PACIFIC SAR REGION

SN	ID	AREA	DIST	L	CS	FV	ACT	EP1	EP2	EP3	EP4
18	WG	186029	760	G	16	16	1	010	000	930	860
19	WH	102667	762	G	35	9	2	010	000	930	860
20	XG	611896	379	G	70	68	4	750	000	990	400
21	XH	308002	280	G	75	65	3	860	010	990	100
22	YG	611896	829	G	33	44	1	010	000	940	850
23	YH	505237	908	G	50	173	1	010	000	940	860
24	YK	115555	847	A	35	79	3	010	000	940	840
25	ZG	611896	1674	G	14	10	0	000	000	840	640
26	ZH	746207	1637	H	69	29	1	000	000	840	680
27	ZJ	640783	960	A	186	44	1	010	000	940	860
28	ZK	491690	407	A	115	404	3	700	000	990	580
29	ZL	20772	616	A	27	18	0	150	000	960	790
30	AF	269658	1667	H	3	5	3	000	000	860	660
31	AG	800779	1181	H	14	14	3	000	000	900	860
32	AH	746207	805	H	72	14	2	010	000	950	830
33	AJ	640783	859	A	159	12	1	010	000	940	840
34	AK	491690	163	A	147	561	3	950	100	990	240
35	AL	193492	820	A	23	20	0	010	000	940	850
36	BF	269658	1437	H	2	3	4	000	000	870	790
37	BG	800779	836	H	19	10	6	010	000	940	840
38	BH	746207	74	H	85	12	11	940	550	990	100
39	BJ	640783	968	H	152	16	0	010	000	930	860
40	BK	443348	707	A	159	382	3	010	000	960	780
41	CF	269658	1704	H	2	1	1	000	000	830	560
42	CG	800779	1231	H	17	2	2	010	000	880	850
43	CH	746207	871	H	85	4	5	010	000	880	800
44	CJ	640783	925	F	158	13	3	010	000	940	860
45	CK	491690	1192	F	135	325	3	010	000	920	860
46	DF	269658	2302	H	2	2	0	000	000	740	100
47	DG	800779	1849	F	19	186	1	000	000	810	440
48	DH	746207	960	F	74	10	4	010	000	930	860
49	DJ	574449	215	F	198	160	8	920	010	990	100
50	DK	231110	727	F	98	122	3	010	000	960	790
51	FF	224715	2505	F	7	32	0	000	000	710	100
52	EG	800779	1920	F	22	21	0	000	000	800	300
53	FH	626499	1061	F	171	10	0	010	000	920	870
54	FJ	75881	404	F	37	30	4	700	000	980	460
55	FG	398344	2269	F	101	81	0	000	000	750	100
56	FH	85807	1748	F	78	14	0	000	000	850	740

ATTACHMENT 3

TO

APPENDIX B

SYSTEM PARAMETER DATA SHEETS

11/25/02

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SYSTEM PARAMETER DATA SHEETS

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System Parameter Data Sheets

The Government and User Cost Data for the High Seas Alerting and Locating Systems is the same data that was used for the systems in the Coastal Area Study, except for several systems that were not candidates alternatives in the coastal area. The enclosures to this attachment describe the basis for the cost components for each system. The rationale for the cost components for the several systems that were not included in the Coastal Area Study are described in the following paragraphs.

- Ser No. 3, 1B1C, Installed L-Band SATCOM relays alert to RCC.

- GACI: No acquisition costs since this service is provided by a commercial carrier on a tariff basis.

- GAOM: Annual operating cost is based on amount of emergency traffic which is based on annual SAR caseload. Annual cost is derived from the following data:

Three emergency messages per SAR incident, 20 words per message and \$0.40 per word. This is \$24.00 per SAR incident and the estimated annual operating cost, computed on an annual basis, is:

$$GAOM(i) = 24 \times BC \times (1 + RC)^i \times 5000/18985$$

where it is estimated that only 5000 out of 18,985 commercial vessels are equipped with L-Band communications equipment.

- User Cost Data: The user costs are based on the following quotations:

Unit Cost, \$52,545 (1976 dollars) based on production quantity of 200 (total of 600 produced by three different manufacturers) plus installation cost of \$3,000.

Lease Cost, \$1,275 (1976 dollars) per month for minimum term of 5 years plus installation cost of \$3,000.

Lease/Buy Cost Comparison, The uniform annual cost, assuming 10 percent interest rate, uniform depreciation over 10-year life and 10-percent annual maintenance cost for own ownership, is,

$$\text{Buy } 52545 \times (0.1627 + 0.10) = \$13,806$$

$$\text{Lease } 1275 \times 12 = \$15,300$$

Unit Cost to User of \$48,300 is obtained by converting unit cost plus installation in 1976 dollars to 1974 dollars $(52,545 + 3,000)/1.15 = \$48,300$.

- Ser No. 4, 1B1D, Installed HF alerting via shore stations.
 - GACI: Estimated nine HF shore stations at unit cost of \$300,000 per station plus \$100,000 for installation. Data estimated from Coast Guard Radio Station Installed Equipment Costs based on number of operation positions.
 - GAOM: Annual operating costs are based on data similar to that from which the costs were derived for installed 500 kHz radio stations; five personnel per station plus 10 for system, 10 percent annual maintenance and \$10,000 landline lease.
 - User Cost Data: Quotation of \$9,800 in 1976 dollars based on estimated production of 225 units. Quotation is converted to 1974 dollars $(9800 / 1.15 = 8522)$.
- Ser No. 13, 1B30, Survival 8364 KHz alerting via shore stations.
 - GACI: Alerting is by means of the same HF shore radio stations described in Ser No. 4.
 - GAOM: Same as Ser No. 4.

- User Cost Data: Based on estimated quotation of \$4500 in 1976 dollars for first production unit. Estimate for first unit in 1976 dollars is converted to 1974 dollars and learning factor of 88 percent is used to obtain users unit cost of \$900 which is comparable with cost of survival 2182 kHz used in Coastal Area Study.

$$(4500 / 1.15) \times (3,000)^{\ln .88 / \ln 2} = 894$$

- Ser No. 14, 1B4A, Combination Survival Transmitting 500, 2182, and 8364 kHz alerting via shore stations.

- GACI: Alerting is by means of the same HF shore radio stations described in Ser No. 4.
- GAOM: Same as Ser No. 4
- User Cost Data: Based on estimated quotations of \$6500 in 1976 dollars for first production unit. Estimate for first unit in 1976 dollars and learning factor of 88 percent is used to obtain user's unit cost of \$1300.

$$(6500 / 1.15) \times (3000)^{\ln .88 / \ln 2} = \$1291$$

- Ser No. 17, 2B1C, Installed L-Band SATCOM reports position via relay to RCC.

- GACI: Same as Ser No. 3.
- GAOM: Same as Ser No. 3
- User Cost: Same as Ser No. 3

- Ser No. 18, 2B1D, Installed HF reports location to shore stations.

- GACI: Same as Ser No. 4
- GAOM: Same as Ser No. 4.
- User Cost: Same as Ser No. 4.

- Ser No. 2B2B, Installed HF located by shore DF.
 - GACI: None, service provided at no cost.
 - GAOM: Estimate \$10,000 landline leases similar to Ser. No. 19.
 - User Cost: Same as Ser No. 4.
- Ser No. 24, 2B3D, Installed HF located by aircraft DF/Homing (DSB equipment).
 - GACI: Unit and installation costs provided for aircraft HF - DE, other factors similar to Ser No. 21. (Estimate provided for both 156 and 190 SRUs).
 - GAOM: Factors similar to Ser No. 21.
 - User Cost: Same as Ser No. 4.
- Ser No. 28, 2B4D, Installed HF locating by Ship DF/Homing (DSB equipment).
 - GACI: Unit and installation costs provided for ship HF - DF, other factors similar to Ser No. 25.
 - GAOM: Factors similar to Ser No. 25.
 - User Costs: Same as Ser No. 4.
- Ser Nos. 43 & 44, 2B7C (S&D), ERIRB 406 MHz retransmits NAVAJD information via orbiting satellite.
 - GACI: Cost of system for orbiting satellites considered similar to Ser No. 39(S), 40(D).
 - GAOM: Same as Ser No. 39(S), 40(D).
 - User Cost: Based on Quote of \$450 in 1974 dollars for production quantity of 50,000. The learning factor of 88 percent is used to obtain users unit cost of \$750 for quantity of 3000.

$$450 \times (3000/50000)^{\ln .88/\ln 2} = \$756$$

The user cost for Ser No. 41(S) and 42(D) should also be \$750 instead of \$350. The high cost is due to the retransmission capability.

- Ser No. 46, 2B8B, Survival 8364 kHz located by shore DF.
 - GACI: Same locating system as used for Ser No. 20.
 - GAOM: Same as Ser No. 20.
 - User Cost: Same as Ser No. 13.
- Ser No. 49, 2B9C, Survival 8364 kHz located by aircraft DF/Homing (DSB)
 - GACI: Unit and installation costs provided for aircraft HF - DF same as for Ser No. 24. Other factors similar to Ser No. 47.
 - GAOM: Factors similar to Ser No. 47.
 - Unit Cost: Same as Ser No. 13.
- Ser No. 52, 2B10C, Survival 8364 kHz located by ship DF/Homing (DSB).
 - GACI: Unit and installation costs provided for ship HF - DF. Other factors are same as for Ser No. 28.
 - GAOM: Same as Ser No. 28.
 - User Cost: Same as Ser No. 13.

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 1 to Attach 3 of App B; IIS Ser # 1, SALTII # 1BIA () - - C.A Ser # 4, SALTII # 1A2A ()

Description: INSTALLED 500 kHz ALERTING VIA SHORE STATIONS

Remarks: SAME AS HS #15

(For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /2 xm, 2 Rev	12	12	32.0			10.0		
/Remotes	4	4	12.0					
/								
/								
			* (432.0)	()	()	(120.0)	()	552.0

Sp Eq: Included in Unit Cost

Test Equip (); Initial Training (); Misc Costs ()

TOTAL GACI = 552.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (432.0)
 Recurring Training Cost (); Landline Cost (10.0); Misc Costs ()
 TOTAL GAOM = 767.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$.

b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651; NM = 5; LF = 82 percent.

ARG 270; LRG 270; CM = 18985; FM = 0;

CUP = 100; FUP = 0; AUP = 0;

Encl 2 to Attach 3 of App B; HS Ser # 2, SALTTI # 1 B1B () - - CA Ser # 5, SALTTI # 1 A2B ()

Description: INSTALLED 2181 kHz ALERTING VIA SHORE STATIONS

Remarks: SAME AS HS #5 GOV'T COST (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$'000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80	7.0					
/							
/							
/							
		* (560.0)	()	()	()	()	560.0
Sp Eq: _____	8	7.0					56.0

Test Equip (_____); Initial Training (_____); Misc Costs _____ (_____)

TOTAL _____

Great Lakes 4/3 x 616.0 GACI = 821.3

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50 Units, 5 per Unit + 0 = 250 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (192.0); Misc Costs ()

TOTAL		
GREAT LAKES 4/3 x 2758.0		
GAOM =		3677.3

2. User Cost Data

a. Quotation: Unit Cost \$ (197) based on production of . Installation Cost \$

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: $UUC = \$1500$ (1974 \$); $QUAN = 2821$; $NM = 10$; $LF = 85$ percent.

ARG 70 ; LRG 70 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 3 to Attach 3 of App B; HS Ser # 3, SALTII # 1 B1C () - - C.A Ser # - , SALTII # - A - ()

Description: L-BAND SATCOM RELAYS ALERT TO RCC

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Cost	Unit	AC&I	RDT&E	Repl Cost	SUB-TOTAL
					Cost	Cost	Years	
Mission Satellites								
Launches								
Ground Stations								
On-Orbit Spare Satellites								
Launches								
Tariff Service					() () () ()			

Test Equip (); Initial Training (); Misc Costs () GACI = 0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (6.0); Misc Costs () GAOM = 6.0 +
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 52,545 (1976 \$) based on production of 600/3. Installation Cost \$ 3K
 Lease Cost \$ 15,300 (1976 \$) per year. * Installation Costs \$ 3K. *for 5 years

b. System Data: UUC = \$ 48,300 (1974 \$); QUAN = 200; NM = 3; LF = 82 percent.

ARC = 0; LRG 999; CM = 5000; FM = 0;

CUP = 0; FUP = 0; AUP = 0;

B-3-4

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 5 to Attach 3 of App B; HS Ser # 5, SALTTI # 1 B 2A (), - - CA Ser # 15, SALTTI # 1 A 3G ()

Description: EPIRB 2182 kHz

Remarks: SAME AS HS #2 GOV'T COST
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80	7.0					
/							
/							
/							
	*	(560.0)	()	()	()	()	560.0
Sp Eq:	8	7.0					56.0

B-3-5

Test Equip (_____); Initial Training (_____); Misc Costs _____ (_____)

TOTAL 616.0 x 4/3 (Great Lakes) GACI = 821.3

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: $\frac{50}{\text{Units}}$ per Unit + $\frac{0}{\text{}} = \frac{250}{\text{}}$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of $\frac{\text{}}{\text{}}$

Recurring Training Cost $\frac{\text{}}{\text{}}$; Landline Cost $\frac{192.0}{\text{}}$; Misc Costs $\frac{\text{}}{\text{}}$

TOTAL $\frac{2758.0 \times 4/3 \text{ (Great Lakes)}}{\text{}} = \frac{3677.3}{\text{}}$ GAOM =

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197__ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 350 (1974 \$); QUAN = 3000; NM = 8; LF = 88 percent.

ARG 16 ; LRG 16 ; CM = 18985 ; FM = 10000 ;

CUP = 10; FUP = 90; AUP = 0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 6 to Attach 3 of App B; HS Ser # 6, SALTII # 1 B2B () - - CA Ser # 10, SALTII # 1 A 3D ()

Description: EPiRB 121.5/243 ALERTS VIA AIRCRAFT OVERFLIGHT

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
None /							
/							
/							
/							
		* ()	()	()	()	()	

Sp Eq: _____

Test Equip () ; Initial Training () ; Misc Costs ()

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 60 Units, 5 per Unit + 0 = 300 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost () ; Landline Cost () ; Misc Costs Lease (1000.0)

TOTAL

GAOM = 4060.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197) based on production of _____. Installation Cost \$ _____

Lease Cost \$ (197) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.

ARG 0 ; LRG 30 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 7 to Attach 3 of App B; HS Ser # 7, SALTTI # 1 B 2 C (S) - - CA Ser # 11, SALTTI # 1 A 3 E (S)

Description: EPIRB 121.5/243 MHz ALERTING VIA ORBITING SATELLITE

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 5 Years	SUB-TOTAL
Mission Satellites	2		1000.0	2000.0	2000.0	2000.0	
Launches	2		1000.0	2000.0		2000.0	
Ground Stations	2		1250.0	2500.0	500.0		
On-Orbit Spare Satellites	2		1000.0	1000.0		2000.0	
Launches	2		1000.0	2000.0		2000.0	
				10500.0	(2500.0)	(8000.0)	(12884.1)
							25884.1

Test Equip (_____); Initial Training (_____); Misc Costs (_____) GACI = 25884.1

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Sta Units, 5 per Unit + _____ = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * (_____)

Recurring Training Cost (_____); Landline Cost (15.0); Misc Costs OE (150.0) 165.0

TOTAL GAOM = 267.0

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 250 (1974 \$); QUAN = 3000; NM = 8; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 8 to Attach 3 of App B; HS Ser # 8, SALTII # 1 B 2C (D) - - CA Ser # 12, SALTII # 1 A 3E (D)

Description: EPIRB 121.5/243 MHz ALERTING VIA ORBITING SATELLITE

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 5 Years	SUB-TOTAL
Mission Satellites	2		5000.0	10000.0	2500.0	10000.0	
Launches	2		5000.0	10000.0		10000.0	
Ground Stations	2		1250.0	2500.0	500.0		
On-Orbit Spare Satellites	2		3000.0	6000.0		6000.0	
Launches	2		5000.0	10000.0		10000.0	
				(38500.0)	(3000.0)	(36000.0)	(57978.4)
							99478.4

Test Equip (_____); Initial Training (_____); Misc Costs (_____)

TOTAL

GACI = 99478.4

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Sta Units, 12 per Unit + _____ = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * (_____)

Recurring Training Cost (_____); Landline Cost (15.0); Misc Costs OE (400.0)

TOTAL

GAOM = 659.8

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 250 (1974 \$); QUAN = 3000; NM = 8; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 9 to Attach 3 of App B; HS Ser # 9, SALT TI # 1 B 2D (S) - - CA Ser # 13, SALT TI # 1 A 3F (S)

Description: EPIRB 406 MHz ALERTING VIA GEOSTATIONARY SATELLITE

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Incl	7 Years 12000.0	
Launches	1	1					
Ground Stations	2	2		1750.0	Incl		
On-Orbit Spare Satellites	1	1	8000.0	8000.0		8000.0	
Launches							
				(21750.0)	()	(20000.0)	(35080.0)
							56830.0

Test Equip (); Initial Training (); Misc Costs ()

TOTAL

GACI = 56830.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Sta Units, 5 per Unit + 10 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (200.0) 215.0

TOTAL GAOM = 317.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 250 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 10 to Attach 3 of App B; HS Ser # 10, SALTII # 1 B 2D (D) - - CA Ser # 14, SALTII # 1 A 3F (D)

Description: EPIRB 400 MHz ALERTING VIA GEOSTATIONARY SATELLITE

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Unit	AC&I	RDT&E	Repl Cost	
	Units	Cost	Cost	Cost	7 Years	SUB-TOTAL
Mission Satellites	<u>1</u>	<u>20000.0</u>	<u>20000.0</u>	<u>4000.0</u>	<u>20000.0</u>	
Launches	<u>1</u>					
Ground Stations	<u>2</u>	<u>1500.0</u>	<u>3000.0</u>	<u>250.0</u>		
On-Orbit Spare Satellites	<u>1</u>	<u>10000.0</u>	<u>10000.0</u>		<u>10000.0</u>	
Launches	<u>1</u>	<u>5000.0</u>	<u>5000.0</u>		<u>5000.0</u>	
			<u>(38000.0)</u>	<u>(4250.0)</u>	<u>(35000.0)</u>	<u>(68205.1)</u>
						<u>110455.1</u>

Test Equip (_____); Initial Training (_____); Misc Costs (_____) GACI = 110455.1

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Sta Units, 12 per Unit + _____ = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * (_____)

Recurring Training Cost (_____); Landline Cost (15.0); Misc Costs OE (400.0) 415.0

TOTAL GAOM = 659.8

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 250 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 12 to Attach 3 of App B; HS Ser # 12, SALT TI # 1 B 3 B () - - CA Ser # 18, SALT TI # 1 A 4 B ()

Description: SURVIVAL 2182 kHz ALERTING VIA SHORE STATIONS

Remarks: SAME AS HS #2 GOVT COST (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80	7.0					
/							
/							
/							
		* (560.0)	()	()	()	()	560.0
Sp Eq:	8	7.0					56.0

Test Equip () ; Initial Training () ; Misc Costs 616.0 x 4/3 Great Lakes GACI = 821.3

TOTAL
b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)
Personnel: 50 Units, 5 per Unit + 0 = 250 Total personnel times \$10,200 pa. 2550.0
Annual Maintenance Cost: 10 percent of * () 16.0
Recurring Training Cost () ; Landline Cost (192.0) ; Misc Costs () 192.0
TOTAL 2758.0 x 4/3 (Great Lakes) GAOM = 3677.3

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000 ; NM = 6 ; LF = 88 percent.
ARG 37 ; LRG 32 ; CM = 18985 ; FM = 10000 ;
CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 13 to Attach 3 of App B; HS Ser # 13, SALTTI # 1 B 3 C () - - CA Ser # -, SALTTI # - A - ()
 Description: SRUVIVAL 8364 kHz ALERTING VIA SHORE STATIONS

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /		9	300.0			100.0		
/								
/								
/								
		*	(2700.0)	()	()	(900.0)	()	3600.0

Sp Eq: Included _____

Test Equip (_____); Initial Training (_____); Misc Costs _____ (_____) GACI = 3600.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa. 561.0
 Annual Maintenance Cost: 10 percent of * (2700.0) 270.0
 Recurring Training Cost (_____); Landline Cost (10.0); Misc Costs _____ (_____) 10.0
 TOTAL GAOM = 841.0

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (197 6 \$) based on production of 1st unit. Installation Cost \$ Incl

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.
 b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 25; LRG 20; CM = 18985; FM = 0;
 CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 14 to Attach 3 of App B; HS Ser # 14, SALTTI # 1 B 4 A () - - CA Ser # - , SALTTI # - A - ()

Description: ~~COMBINATION SURVIVAL TRANSMITTING 500, 2182, and 8364 kHz~~

Remarks: _____

(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
/							
/							
/							
	*	(2700.0)	()	()	(900.0)	()	3600.0

Sp Eq:

Test Equip (_____); Initial Training (_____); Misc Costs (_____)
TOTAL GACI = 3600.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa. 561.0

Annual Maintenance Cost: 10 percent of * (2700.0)

Recurring Training Cost (_____); Landline Cost (10.0); Misc Costs (10.0)

TOTAL	841.0
GAOM =	841.0

2. User Cost Data

a. Quotation: Unit Cost \$ 6500 (1976 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 1300 (1974 \$); QUAN = 3000; NM = 4; LF = 88 percent.

ARG 27 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

CUP = 100 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 15 to Attach 3 of App B; HS Ser # 15, SALTII # 2 B 1A () - - CA Ser # 19, SALTII # 2 A 1A ()

Description: INSTALLED 500 kHz REPORTS LOCATION

Remarks: SAME AS HS #1 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2 Xm, 2 Rev	12	32.0				10.0		
/ Remotes	4	12.0						
/								
/								
			*(432.0)	()	()	(120.0)	()	552.0

Sp Eq: _____

Test Equip () ; Initial Training () ; Misc Costs () GACI = 552.0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa. 714.0
Annual Maintenance Cost: 10 percent of *(432.0) 43.2
Recurring Training Cost () ; Landline Cost (10.0) ; Misc Costs () GAOM = 10.0
TOTAL 767.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$.
b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651 ; NM = 5 ; LF = 82 percent.
ARG 0 ; LRG 270 ; CM = 18985 ; FM = 0 ;
CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 16 to Attach 3 of App B; HS Ser # 16, SALTII # 2 B1B () - - CA Ser # 20, SALTII # 2 A1B ()

Description: INSTALLED 2182 kHz REPORTS LOCATION

Remarks: SAME AS HS #2 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80		7.0					
/								
/								
/								
			* (560.0)	()	()	()	()	560.0

Sp Eq: 8 7.0 56.0

Test Equip (); Initial Training (); Misc Costs (); 616.0 x 4/3 Great Lakes GACI = 821.3

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50 Units, 5 per Unit + 0 = 250 Total personnel times \$10,200 pa. 2550.0

Annual Maintenance Cost: 10 percent of * () 16.0

Recurring Training Cost (); Landline Cost (192.0); Misc Costs () 192.0

TOTAL 2758.0 x 4/3 Great Lakes GAOM = 3677.3

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$.

b. System Data: UUC = \$ 1500 (1974 \$); QUAN = 2821 ; NM = 10 ; LF = 85 percent.

ARG 0 ; LRG 70 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 17 to Attach 3 of App B; HS Ser # 17, SALT TI # 2B1C (-) - - CA Ser # -, SALT TI # -A - (-)Description: INSTALLED L-BAND SATCOM REPORTS LOCATION VIA RELAY TO RCCRemarks: SAME AS HS #3 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost Years	SUB-TOTAL
Mission Satellites							
Launches							
Ground Stations							
On-Orbit Spare Satellites							
Launches							
Tariff Service				() () () () ()			

Test Equip () ; Initial Training () ; Misc Costs () GACI = 0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost () ; Landline Cost (6.0) ; Misc Costs () 6.0
TOTAL 6.0
GAOM = 6.0

2. User Cost Data

a. Quotation: Unit Cost \$ 52545 (1976 \$) based on production of 600/3. Installation Cost \$ 3K
Lease Cost \$ 15300 (1976 \$) per year. * Installation Costs \$ 3K. * for 5 yearsb. System Data: UUC = \$ 48300 (1974 \$); QUAN = 200; NM = 3; LF = 82 percent.ARG 0; LRG 999; CM = 5000; FM = 0;CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 18 to Attach 3 of App B; HS Ser # 18, SALTII # 2 BID () - - CA Ser # - , SALTII # - A - ()

Description: INSTALLED HF REPORTS LOCATIONS TO SHORE STATION

Remarks: SAME AS HS #4 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
/							
/							
/							
		*(2700.0)			(900.0)		3600.0

Sp Eq: Included

Test Equip (); Initial Training (); Misc Costs () GACI = 3600.0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of *(2700.0)
 Recurring Training Cost (); Landline Cost (10.0); Misc Costs () GAOM = 841.0
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (1976 \$) based on production of 1800/8. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225 ; NM = 5 ; LF = 82 percent.

ARG 0 ; LRG 25 ; CM = 18985 ; FM = 0 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 20 to Attach 3 of App B; HS Ser # 20, SALTII # 2 B 2B () - - CA Ser # -, SALTII # - A - ()

Description: INSTALLED HF LOCATED BY SHORE DF

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
/								
/								
/								
/								
			*	()	()	()	()	

Sp Eq: _____

Service Provided

Test Equip () ; Initial Training () ; Misc Costs () GACI = 0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *()

Recurring Training Cost () ; Landline Cost (10.0) ; Misc Costs () GAOM = 10.0

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (197 6 \$) based on production of 1800/8. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225 ; NM = 5 ; LF = 82 percent.

ARG 0 ; LRG 25 ; CM = 18985 ; FM = 0 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

Encl 21 to Attach 3 of App B; HS Ser # 21, SALTTI # 2 B 3A () - - CA Ser # 25, SALTTI # 2 A 3A ()

Description: INSTALLED 500 kHz LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50% 40 x 2.25	Sp Comp Cost 40% 4 x 1.8	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156	4.5			3.0	25.0	
/							
/							
/							
*	(702.0)		(90.0)	(7.2)	(468.0)	(25.0)	1292.2
Sp Eq: AS	20	4.5					
							90.0

Test Equip (<u>75.0</u>);	Initial Training (<u>12.8</u>);	Misc Costs	(<u>87.8</u>)
TOTAL			GACI = <u>1470.0</u>

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * (702.0)

Recurring Training Cost (); Landline Cost (); Misc Costs ()

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197__ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197__ \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651; NM = 5; LF = 82 percent.

ARG 0 ; LRG 200 ; CM = 18985 ; FM = 0

CUP = 100; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 22 to Attach 3 of App B; HS Ser # 22, SALT TI # 2 B3B () - - CA Ser # 26, SALT TI # 2 A 3B ()

Description: INSTALLED 2182 kHz LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156	4.5	40 x 2.25	4 x 1.8	0.45	25.0	
/ ARC-94	156	12.0	40 x 6.0	4 x 4.8	1.2	25.0	
/							
/							
Sp Eq: A/S ARN-89	20	4.5					3237.8
ARC-94	50	12.0					690.0

Test Equip (75.0); Initial Training (12.8); Misc Costs _____ (_____) GACI = 87.8
TOTAL 4015.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * (2574.0)
Recurring Training Cost (12.8); Landline Cost (_____); Misc Costs _____ (_____) GAOM = 270.2
TOTAL 257.4

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____ Installation Cost \$ _____
Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____
b. System Data: UUC = \$ 1500 (1974 \$); QUAN = 2821; NM = 10; LF = 85 percent.
ARG 0; LRG 60; CM = 18985; FM = 10000;
CUP = 10; FUP = 90; AUP = 0;

Encl 23 to Attach 3 of App B; HS Ser # 23, SALTTI # 2 B 3C () - - CA Ser # 27, SALTTI # 2 A 3C ()

Description: ~~INSTALLED 156.8 MHz LOCATED BY AIRCRAFT DF/HOMING~~

Remarks: SAME AS HS #29 GOUT COSTS

1. Government Cost Data

(For AL only: AO Ser # _____, LO Ser # _____)

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H 16, HC-130, H 3/DF301	89	3.0	25+15 1.5	4 x 1.2	3.0		
H-52 / DMSE-47-2	67	2.5	25+15 1.25	4 x 1.0	2.5	5.0	
/ ARC-160	156	4.5	25+15 2.25	4 x 1.8	3.0		
		*	(1136.0)	(200.0)	(902.5)	(5.0)	2259.5
Sp Eq: A/S DF301	20	3.0					
A/S SMSE47-2	20	2.5					218.0
A/S + PLARC-160	24	4.5					
Test Equip (50.0); Initial Training (_____) ; Misc Costs _____							50.0
TOTAL						GACI =	2527.5
b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)							
Personnel: 20 A/S Units, 1 per Unit + 0 = 20 Total personnel times \$10,200 pa.							204.0
Annual Maintenance Cost: 10 percent of * (1136.5)							113.6
Recurring Training Cost (_____) ; Landline Cost (_____) ; Misc Costs _____ (_____)						GAOM =	317.6
TOTAL							

2. User Cost Data

a. Quotation: Unit Cost \$ 197 (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 400 (1974 \$); QUAN = 3527; NM = 8; LF = 85 percent.
 ARG 0; LRG 25; CM = 18985; FM = 10000;
 CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 24 to Attach 3 of App B; HS Ser # 24, SALTII # 2 B 3D (e) - - C.A Ser # , SALTII # A ()

Description: INSTALLED HF LOCATED BY AIRCRAFT DF/HOMING (DSB)

Remarks: Like HS #21 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50% 40 x 1.5	Sp Comp Cost 40% 4 x 1.2	Installation Cost	Document Cost	SUB-TOTAL
All A/ /	156	3.0			1.0	15.0	
/							
/							
/							
AS	20	*(468.0) 3.0	(60.0)	(4.8)	(156.0)	(25.0)	713.8
							60.0

Test Equip (75.0); Initial Training (12.8); Misc Costs () GACI = 87.8
TOTAL 861.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of *(468.0)
Recurring Training Cost (12.8); Landline Cost (); Misc Costs () GAOM = 46.8
TOTAL 12.8
59.6

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (1976 \$) based on production of 1800.8. Installation Cost \$ Incl
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225; NM = 5; LF = 82 percent.
ARG 0; LRG 25; CM = 18985; FM = 0;
CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 25 to Attach 3 of App B; HS Ser # 25, SALTTI # 2 B 4A () - - CA Ser # 28, SALTTI # 2 A 4A ()

Description: INSTALLED 500 KHZ LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' / DF	196	196	5.0	2.5	2.0	2.544	30.0	
/ Smtr	196	196	7.0	3.5	2.8	6.0	30.0	
/ Coupler	196	196	3.0	1.5	1.2			
/ Ant	196	196	1.0					
			*(3136.0)	(1470.0)	(1176.0)	(1674.6)	(60.0)	7516.6
Sp Eq:	32		16.0					512.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () ; GACI = 8078.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 15 Total personnel times \$10,200 pa. 153.0
 Annual Maintenance Cost: 10 percent of *(3136.0) 313.6
 Recurring Training Cost (8.0) ; Landline Cost () ; Misc Costs () ; GAOM = 474.6
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$.
 b. System Data: UUC = \$ 17000 (1974 \$) ; QUAN = 3651 ; NM = 5 ; LF = 82 percent.
 ARG 0 ; LRG 200 ; CM = 18985 ; FM = 0 ;
 CUP = 100 ; FUP = 0 ; AUP = 0 ;

Encl 26 to Attach 3 of App B; HS Ser # 26, SALTTI # 2 B4B () - - CA Ser # 29, SALTTI # 2 A 4B ()

Description: INSTALLED 2182 KHZ LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' / TCVR URC-58	196	5.0	2.5	2.0	2.544	30.0	
/ Coupl & Ant	196	8.3	4.15	3.32	1.2	30.0	
/							
/							
* (2606.8)			(1303.4)	(1042.7)	(733.8)	(60.0)	5746.7
Sp Eq:	32	13.3					
							425.6

Test Equip (); Initial Training (50.0); Misc Costs) 50.0
TOTAL 6222.3 GACI =

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 0 = 15 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(2606.8)

Recurring Training Cost (8.0); Landline Cost (); Misc Costs ()

TOTAL	421.7
GAOM =	421.7

2. User Cost Data

a. Quotation: Unit Cost \$	(197	\$) based on production of	.	Installation Cost \$
Lease Cost \$	(197	\$) per year.	Installation Costs \$	.

b. System Data: $\overline{UUC} = \$1500$ (1974 \$); $\overline{QUAN} = 2821$; $NM = 10$; $LF = 85$ percent.

ARG 0 ; LRG 60 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 27 to Attach 3 of App B; HS Ser # 27, SALTII # 2 B 4C () - - C A Ser # 30, SALTII # 2 A 4C ()

Description: INSTALLED 156.8 MHZ LOCATED BY SHIP DF/HOMING

Remarks: Same as HS #34

(For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 40' / DF	403	1.3					
/VHF-FM Radio	403	2.541					
/							
		* (1547.9)	(157.7)	(57.6)	(507.2)	(30.0)	2300.4
Sp Eq:	72	1.3					93.6

Test Equip () ; Initial Training (12.0) ; Misc Costs () GACI = 12.0
TOTAL 2406.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of * (1547.9) 154.8
Recurring Training Cost (5.0) ; Landline Cost () ; Misc Costs () GAOM = 5.0
TOTAL 312.8

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 400 (1974 \$) ; QUAN = 3527 ; NM = 8 ; LF = 85 percent.
ARG 0 ; LRG 25 ; CM = 18985 ; FM = 10000 ;
CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 28 to Attach 3 of App B; HS Ser # 28, SALTTI # 2 B 4D (C) - - CA Ser # , SALTTI # A ()

Description: INSTALLED HF LOCATED BY SHIP DF/HOMING (DSB)

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Unit	Sp MA	Sp Comp	Installation	Document	SUB-TOTAL
Ves over 82' /	Units	Cost	Cost 50%	Cost 40%	Cost	Cost	
196	196	5.0	2.5	2.0	1.7	30.0	
HEC 17 / MEC 23							
WAGB 5 / WPB 75							
WYTM 14 / WAGO 2							
	*	(980.0)	(490.0)	(392.0)	(333.2)	(30.0)	2225.2
Sp Eq:	32	5.0					160.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () GACI = 2435.2

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of *(980.0) 98.0

Recurring Training Cost (8.0) ; Landline Cost () ; Misc Costs () GAOM = 259.0

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (197 6 \$) based on production of 1800.8 . Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225 ; NM = 5 ; LF = 82 percent.

ARG 0 ; LRG 25 ; CM = 18985 ; FM = 0 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

Encl 30 to Attach 3 of App B; HS Ser # 30, SALTTI # 2 B 5B () - - CA Ser # 40, SALTTI # 2 A 7B ()

Description: EPIRB 2182 KHZ LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50% 40 x 2.25	Sp Comp Cost 40% 4 x 1.8	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156	4.5			.45	25	
/							
/							
/							
*		(702.0)	(90.0)	(7.2)	(70.2)	(25.0)	894.4
Sp Eq: A/S ARN-89	20	4.5					
							90.0

Test Equip (75.0); Initial Training (12.8); Misc Costs () 87.8

TOTAL GACI = 1072.2

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(702.0)

Recurring Training Cost (12.8); Landline Cost (_____); Misc Costs (_____)

TOTAL		<u>83.0</u>
	GAOM =	<u>83.0</u>

2. User Cost Data

a. Quotation: Unit Cost \$_____ (197__ \$) based on production of _____. Installation Cost \$_____.

Lease Cost \$	(197	) per year.	Installation Costs \$

b. System Data: UUC = \$ 350 (1974 \$); QUAN = 3000; NM = 8; LF = 88 percent.

ARG 0 ; LRG 16 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0

Encl 31 to Attach 3 of App B; HS Ser # 31, SALTTI # 2 B 5C () - - CA Ser # 41, SALTTI # 2 A 7C ()

Description: EPIRB UHF-AM LOCATED BY AIRCRAFT DF/HOMING

Remarks: (1) See HS #23; Same as HS #32, 33 Govt Cost (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Unit	Sp MA	Sp Comp	Installation	Document
	Units	Cost	Cost 50%	Cost 40%	Cost	Cost
SH16, HC130, H3 DF301	89	3.0	25+15 1.5	4 x 1.2	3.0	
/ DSME 47-2	67	2.5	25+15 1.25	4 x 1.0	2.5	
/ Radios	156	4.5	25+15 2.25	4 x 1.8	3.0	
/						
		* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)
Sp Eq: A/S + Pipeline	50+4	4.5				2305.0
DF 301	20	3.0				353.0
DSME 47-2	20	2.5				
Test Equip (50.0)		Initial Training ()		Misc Costs ()	()	50.0
TOTAL						GACI = 2708.0
b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)						
Personnel: 20 Units, 1 per Unit + 20					Total personnel times \$10,200 pa.	204.0
Annual Maintenance Cost: 10 percent of * (1136.5)						113.6
Recurring Training Cost ()		Landline Cost ()		Misc Costs ()	()	GAOM = 317.6
TOTAL						

2. User Cost Data

a. Quotation: Unit Cost \$ 197 based on production of . Installation Cost \$
Lease Cost \$ 197 per year. Installation Costs \$. LF = 88 percent.

b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000; NM = 4; LF = 88 percent.
ARG 0; LRG 16; CM = 18985; FM = 10000;
CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 32 to Attach 3 of App B; HS Ser # 32, SALTTI # 2 B5D () - - C.A Ser # 42, SALTTI # 2 A 7D ()

Description: EPIRB 121.5/243 LOCATED BY AIRCRAFT DF/HOMING

Remarks: (1) See HS #23; Same as HS #31, 33 Govt cost (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H3 DF301		89	3.0	25+15 1.5	4 x 1.2	3.0		
H52 / DSME 47-2		67	2.5	25+15 1.25	4x1.0	2.5		
/ Radios		156	4.5	25+15 2.25	4 x 1.8	3.0		
/								
			* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0

Sp Eq: A/S + Pipeline 50+4 4.5
 DF301 20 3.0
 DSME 47-2 20 2.5

Test Equip (50.0); Initial Training (); Misc Costs ()
 TOTAL GACI = 2708.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + = 20 Total personnel times \$10,200 pa. 204.0
 Annual Maintenance Cost: 10 percent of * (1136.5) 113.6
 Recurring Training Cost (); Landline Cost (); Misc Costs ()
 TOTAL GAOM = 317.6

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$.

b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.

ARG 0 ; LRG 30 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

Encl 33 to Attach 3 of App B; HS Ser # 33, SALTTI # 2 B 5E () - - CA Ser # 43, SALTTI # 2 A 7E ()

Description: EPIRB UHF-AM LOCATED BY AIRCRAFT DF/HOMING

Remarks: (1) See HS #23; Some AS HS #31, 32 Govt cost (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Unit	Sp MA	Sp Comp	Installation	Document
H16, HC130, H3 / DF3-1	Units	Cost	Cost 50%	Cost 40%	Cost	Cost
H52 / DSME 47-2	89	3.0	25+15 1.5	4 x 1.2	3.0	
/ Radios	67	2.5	25+15 1.25	4 x 1.0	2.5	
/	156	4.5	25+15 2.25	4 x 1.8	3.0	

2. User Cost Data

a. Quotation: Unit Cost \$ ____ (197__ \$) based on production of _____. Installation Cost \$ _____

b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000; NM = 4; LF = 88 percent.

ARG 0 ; LRG 16 ; CM ≈ 18985 ; FM ≈ 10000 ;
CUP = 0 ; FUP = 0 ; AUP = 0 ;

Encl 34 to Attach 3 of App B; HS Ser # 34, SALTII # 2 B 6A () - - C.A Ser # 44, SALTII # 2 A 8A ()

Description: EPIRB VHF-FM LOCATED BY SHIP DF/HOMING

Remarks: Same as HS#27

(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$'000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 40' / DF	403	1.3					
/ VHF-FM Radio	403	2.541					
/							
/							
*		(1547.9)	(157.7)	(57.6)	(507.2)	(30.0)	2300.4
Sp Eq:	72	1.3					
							93.6

Test Equip (); Initial Training (12.0); Misc Costs () 12.0
TOTAL GACI = 2406 0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * (1547.9)

Recurring Training Cost (5.0); Landline Cost (); Misc Costs ()

TOTAL GAOM = 312.8

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of .
Lease Cost \$ (197 \$) per year. Installation Costs \$.
Installation Cost \$.

b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000; NM = 4; LF = 88 percent.

ARG 0; LRG 16; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 35 to Attach 3 of App B; HS Ser # 35, SALTII # 2 B 6B () - - CA Ser # 45, SALTII # 2 A 8B ()

Description: EPIRB 2182 KHZ LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50% 2.5	Sp Comp Cost 40% 10 x 2.0	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' /	196	5.0					
/							
/							
/							
	*	(980.0)	(490.0)	(20.0)	(498.6)	(30.0)	2018.6

Sp Eq: 32 5.0 160.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () ; GACI = 50.0
TOTAL 2228.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of *(980.0) 98.0
Recurring Training Cost (8.0) ; Landline Cost () ; Misc Costs () 8.0
TOTAL GAOM = 259.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 350 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.

ARG 0 ; LRG 16 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 36 to Attach 3 of App B; HS Ser # 36, SALTII # 2 B6C () - - CA Ser # 46, SALTII # 2A 8C ()

Description: EPIRB UHF-AM LOCATED BY SHIP DF/HOMING

Remarks: Same as HS #37, 38 Govt costs (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46	2.0			3.620	30.0	
/							
/							
/							
Sp Eq:	8	*(92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
		2.0					16.0

Test Equip () ; Initial Training () ; Misc Costs () ; GACI = 342.9

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
 Annual Maintenance Cost: 10 percent of *(92.0) 9.2
 Recurring Training Cost () ; Landline Cost () ; Misc Costs () ; GAOM = 162.2
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000 ; NM = 4 ; LF = 88 percent.
 ARG 0 ; LRG 16 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 37 to Attach 3 of App B; HS Ser # 37, SALTTI # 2 B6D () - - CA Ser # 47, SALTTI # 2 A 8D ()
 Description: EPIRB 121.5/243 LOCATED BY SHIP DF/HOMING

Remarks: Same as HS #36, 38 Govt costs (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	#	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46		2.0			3.62	30.0	
/								
/								
/								
			* (92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8		2.0					16.0

Test Equip () ; Initial Training () ; Misc Costs () GACI = 342.9
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
 Annual Maintenance Cost: 10 percent of * (92.0) 9.2
 Recurring Training Cost () ; Landline Cost () ; Misc Costs () GAOM = 162.2
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of , Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.
 ARG 0 ; LRG 10 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 38 to Attach 3 of App B; HS Ser # 38, SALTTI #2 B 6E() - - CA Ser # 48, SALTTI # 2 A 8E ()

Description: EPIRB VHF-AM LOCATED BY SHIP DF/HOMING

Remarks: Same as #36, 37 Govt costs (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46		2.0			3.62	30.0	
/								
/								
/								
			* (92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8		2.0					16.0

Test Equip () ; Initial Training () ; Misc Costs () GACI = 342.9

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of * (92.0) 9.2

Recurring Training Cost () ; Landline Cost () ; Misc Costs () GAOM = 162.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000 ; NM = 4 ; LF = 88 percent.

ARG 0 ; LRG 16 ; CM = 18985 ; FM 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 39 to Attach 3 of App B; HS Ser # 39, SALTTI # 2 B 7A (S) - - CA Ser # 49, SALTTI # 2 A 9A (S)

Description: EPIRB USING SATELLITE RELAY 121.5/243 MHZ DOPPLER MEASURED BY ORBIT SAT

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 5 Years	SUB-TOTAL
Mission Satellites	2	2	1000.0	2000.0	2000.0	2000.0	
Launches	2	2	1000.0	2000.0	1500.0	2000.0	
Ground Stations	2	2	1000.0	2000.0		2000.0	
On-Orbit Spare Satellites	2	2	1000.0	2000.0		2000.0	
Launches							
				(12000.0)	(3500.0)	(8000.0)	(12884.1)
							28384.1

Test Equip (); Initial Training (); Misc Costs ()

TOTAL GACI = 28384.1

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 10 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc CostsOE (800.0) 815.0

TOTAL

GAOM = 917.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.

ARG 0 ; LRG 999 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 40 to Attach 3 of App B; HS Ser # 40, SALTTI # 2 B 7A (D) - - CA Ser # 50, SALTTI # 2 A9A (D)
 Description: EPIRB USING SATELLITE RELAY 121.5/243 MHZ DOPPLER MEASURED BY ORBIT SAT

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 5 Years	SUB-TOTAL
Mission Satellites							
Launches	2		5000.0	10000.0	2500.0	10000.0	
Ground Stations	2		5000.0	10000.0		10000.0	
On-Orbit Spare Satellites	2		2000.0	4000.0	1500.0		
Launches	2		3000.0	6000.0		6000.0	
	2		5000.0	10000.0		10000.0	101978.4
				(40000.0)	(4000.0)	(36000.6)	(57978.4)
							101978.4

Test Equip (_____); Initial Training (_____); Misc Costs (_____) GACI = 101978.4
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 12 per Unit + 24 Total personnel times \$10,200 pa. 244.8
 Annual Maintenance Cost: 10 percent of * (_____)
 Recurring Training Cost (_____); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 1059.8

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 \$) based on production of _____. Installation Cost \$ _____
 Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____
 b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000; NM = 8; LF = 88 percent.
 ARG 0; LRG 999; CM = 18985; FM = 10000;
 CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 41 to Attach 3 of App B; HS Ser # 41, SALTTI # 2 B 7B (S) - - CA Ser # 51, SALTTI # 2 A 9B (S)

Description: EPIRB 406 MHZ RETRANSMIT NAVAID INFORMATION VIA GEOSTATIONARY SATELLITE

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included	8000.0	
Ground Stations	2	2	8000.0	8000.0			
On-Orbit Spare Satellites	1	1					
Launches							
				(26500.0)	(20000.0)	(35080.0)	61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + = 10 Total personnel times \$10,200 pa. 102.0
Annual Maintenance Cost: 10 percent of *()
Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
TOTAL GAOM = 917.0

2. User Cost Data

a. Quotation: Unit Cost \$ 450 (1974 \$) based on production of 50,000. Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 750 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.
ARG 0; LRG 999; CM = 18985; FM = 10000;
CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 42 to Attach 3 of App B; HS Ser # 42, SALTII # 2 B 7B (D) - - CA Ser # 52, SALTII # 2 A 9B (D)

Description: EPIRB 406 MHZ RETRANSMIT NAVAID INFORMATION VIA GEOSTATIONARY SATELLITE

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs ()

TOTAL

GACI =

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)

TOTAL

GAOM =

2. User Cost Data

400-500

a. Quotation: Unit Cost \$ 450 (197 4 \$) based on production of 50000. Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 750 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 43 to Attach 3 of App B; HS Ser # 43, SALTII # 2 B7C (S) - - CA Ser # , SALTII # A ()

Description: EPIRB 406 MHZ RETRANSMITS NAVAID INFORMATION VIA ORBITING SATELLITE

Remarks: Similar to HS #39 Govt; HS #41 User (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	2	2	1000.0	2000.0	2000.0	5 Years 2000.0	
Launches	2	2	1000.0	2000.0		2000.0	
Ground Stations	2	2	2000.0	4000.0	15000.0		
On-Orbit Spare Satellites	2	2	1000.0	2000.0		2000.0	
Launches	2	2	1000.0	2000.0		2000.0	
				(12000.0)	(3500.0)	(8000.0)	(12884.1)
							28384.1

Test Equip (); Initial Training (); Misc Costs () GACI = 28384.1

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0

TOTAL GAOM = 917.0

2. User Cost Data

a. Quotation: Unit Cost \$ 450 (1974 \$) based on production of 50000. Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 750 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 0; LRG 999; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 44 to Attach 3 of App B; HS Ser # 44, SALTTI # 2 B7C (D) - - CA Ser # , SALTTI # A ()

Description: EPRB 406 MHZ RETRANSMITS NAVAID INFORMATION VIA ORBITING SATELLITE

Remarks: Similar to HS #40 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 5 Years	SUB-TOTAL
Mission Satellites		2	5000.0	10000.0	2500.0	10000.0	
Launches		2	5000.0	10000.0		10000.0	
Ground Stations		2	2000.0	4000.0	1500.0		
On-Orbit Spare Satellites		2	3000.0	6000.0		6000.0	
Launches		2	5000.0	10000.0		10000.0	
				(40000.0)	(4000.0)	(36000.0)	(57978.4)
							101978.4

Test Equip (); Initial Training (); Misc Costs () GACI = 101978.4

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0

TOTAL 1059.8

2. User Cost Data 400-500

a. Quotation: Unit Cost \$ 450 (1974 \$) based on production of 50000 . Installation Cost \$

Lease Cost \$ (1974 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 750 (1974 \$); QUAN = 3000 ; NM = 6 ; LF = 88 percent.

ARG 0 ; LRG 999 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

Encl 45 to Attach 3 of App B; HS Ser # 45, SALTTI # 2 B 8A () - - CA Ser # 53, SALTTI # 2 A 10A ()

Description: SURVIVAL 500 KHZ LOCATED BY SHORE DF

Remarks: Same as HS #19 Govt costs

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Unit	Sp MA	Sp Comp	Installation	Document	SUB-TOTAL
Radio Sta / DF Ant 8 Eq	Units	Cost	Cost 50%	Cost 40%	Cost	Cost	
/ Remote	12	50.0			25.0		
/	4	50.0			25.0		
/							
	*	{ 800.0 }	{ }	{ }	{ 400.0 }	{ }	1200.0

$$Sp \quad Eq:$$

Test Equip (_____); Initial Training (_____); Misc Costs _____)
TOTAL GACI = 1200.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: <u>12</u> Units, <u>5</u> per Unit + <u>10</u> = <u>70</u>	Total personnel times \$10,200 pa.	<u>714.0</u>
Annual Maintenance Cost: 10 percent of *(<u>800.0</u>)		<u>80.0</u>
Recurring Training Cost (<u> </u>); Landline Cost (<u>10.0</u>); Misc Costs Mod (<u>2.0</u>)		<u>12.0</u>
TOTAL	GAOM =	<u>806.0</u>

2. User Cost Data

a. Quotation: Unit Cost \$	(197	\$) based on production of	.	Installation Cost \$
Lease Cost \$	(197	\$) per year.	Installation Costs \$	.

b. System Data: $\overline{UUC} = \$ 3000$ (1974 \$); $\overline{QUAN} = 3651$; $NM = 5$; $\overline{LF} = 85$ percent.

ARG	0	: LRG	20	: CM = 18985	: FM = 0
-----	---	-------	----	--------------	----------

CUP=	100	:	FUP=	0	:	AUP=	0
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SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 46 to Attach 3 of App B; HS Ser # 46, SALT TI # 2 B 8B () - - CA Ser # , SALT TI # A ()

Description: SURVIVAL 8364 KHZ LOCATED BY SHORE DF

Remarks: Same as HS #20 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
/								
/								
/								
/								
			*	()	()	()	()	

Sp Eq:

Service Provided

Test Equip (); Initial Training (); Misc Costs () GACI = 0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (10.0); Misc Costs () GAOM = 10.0

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (1976 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 0; LRG 20; CM = 18985; FM = 0;

CUP = 0; FUP = 0; AUP = 0;

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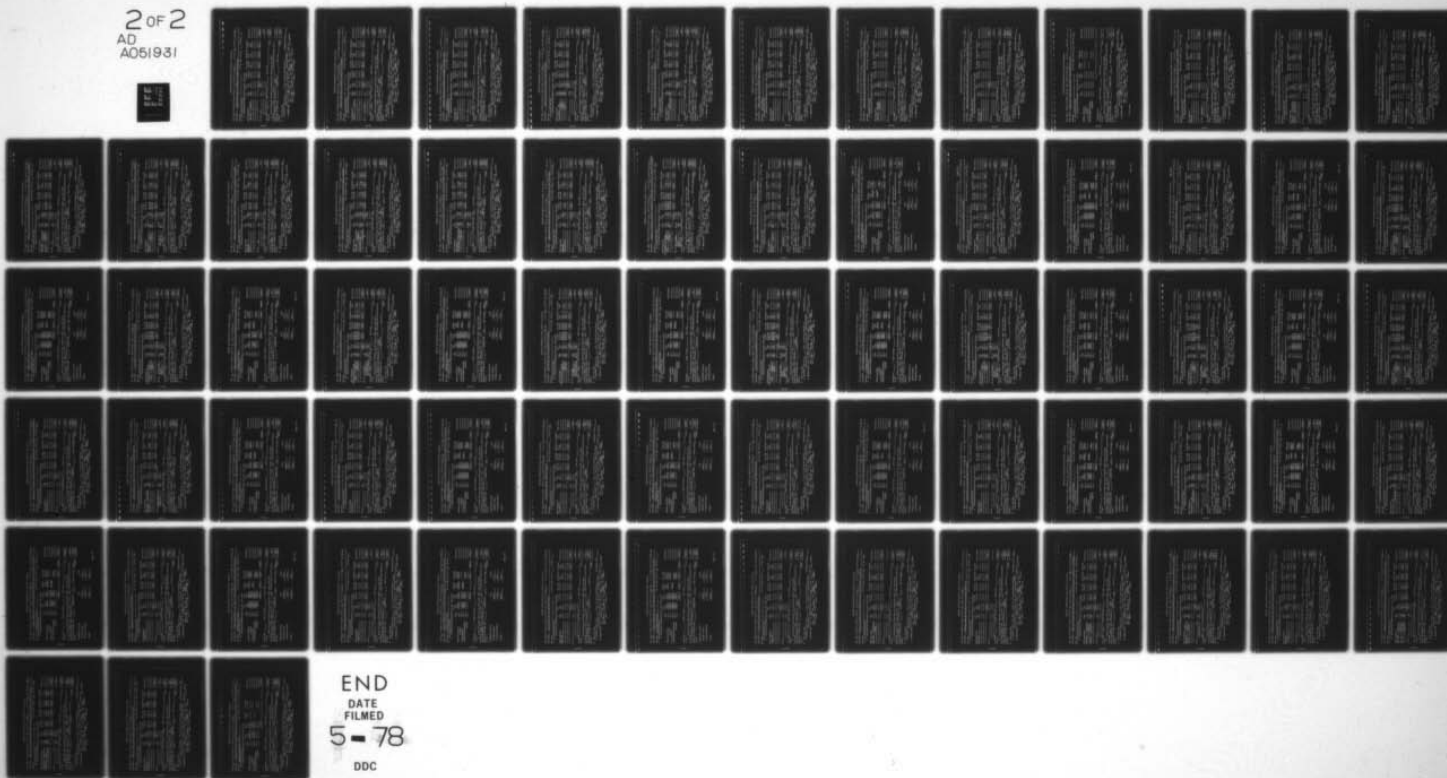
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Encl 47 to Attach 3 of App B; HS Ser # 47, SALTTI # 2 B 9A () - - CA Ser # 55, SALTTI # 2 A 11A ()

Description: SURVIVAL 500 KHZ LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156	4.5	2.25	1.8	3.0	25.0	
/							
/							
/							
	*	(702.0)	(351.0)	(280.0)	(468.0)	(25.0)	1826.8
Sp Eq: A/S	20	4.5					
							90.0

Test Equip (75.0); Initial Training (); Misc Costs 75.0
TOTAL GACI = 1991.8

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * (702.0)

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs (_____)

TOTAL	GAOM = <u><u>70.2</u></u>
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2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of .
Lease Cost \$ (197 \$) per year. Installation Costs \$.
Installation Cost \$.

b. System Data: $\overline{UUC} = \$ 3000$ (1974 \$); $\overline{QUAN} = 3651$; $NM = 5$; $\overline{LF} = 85$ percent.

```
ARG 0 ; LRG 20 ; CM = 18985 ; FM = 0 ;
```

CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 48 to Attach 3 of App B; HS Ser # 48, SALTII # 2 B 9B () - - CA Ser # 56, SALTII # 2 A 11B ()
 Description: SURVIVAL 2182 KHZ LOCATED BY AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156		4.5	2.25	1.8	3.0	25.0	
/								
/								
/								
Sp Eq: A/S ARN-89	20		702.0	351.0	280.0	468.0	25.0	1826.8
			4.5					90.0

Test Equip (75.0); Initial Training (); Misc Costs () GACI = 75.0
 TOTAL 1991.8

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * (702.0)

Recurring Training Cost (); Landline Cost (); Misc Costs () GAOM =

TOTAL 70.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 0; LRG 32; CM = 18985; FM = 10000;

CUP = 0; FUP = 90; AUP = 0;

Encl 49 to Attach 3 of App B; HS Ser # 49, SALTTI # 2 B 9C (C) - - CA Ser # __, SALTTI # A__()

Description:	<u>SURVIVAL 8364 KHZ LOCATED BY AIRCRAFT DF/HOMING (DSB)</u>
--------------	--

Remarks: Like HS #47

(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SSRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
All A/C /	156	3.0	1.5	1.2	1.0	25.0	
/							
/							
/							
*		(468.0)	(234.0)	(187.2)	(156.0)	(25.0)	1070.2
Sp Eq: AS	20	3.0					
							60.0

Test Equip (75.0); **Initial Training** (); **Misc Costs** (75.0)
TOTAL **GACI =** 1205.2

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(468.0)

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs (_____)

TOTAL	<u> </u>	<u> </u>	<u>GAOM = 46.8</u>
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2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (197 6 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 0 ; LRG 20 ; CM = 18985 ; FM = 0 ;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 50 to Attach 3 of App B; HS Ser # 50, SALTII # 2 B10A () - - CA Ser # 57, SALTII # 2 A 12A ()

Description: SURVIVAL 500 KHZ LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' / DF	196	196	5.0	2.5	2.0	2.544	30.0	
/ Xmitter	196	196	7.0	3.5	2.8	6.0	30.0	
/ Coupler	196	196	3.0	1.5	1.2			
/ Ant	196	196	1.0					
			*(3136.0)	(1470.0)	(1176.0)	(1674.6)	(60.0)	7516.6
Sp Eq:	32.0		16.0					512.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () ; GACI = 50.0
TOTAL 8078.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of *(3136.0) 313.6
Recurring Training Cost (8.0) ; Landline Cost () ; Misc Costs () 8.0
TOTAL GAOM = 474.6

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 3000 (1974 \$) ; QUAN = 3651 ; NM = 5 ; LF = 85 percent.

ARG 0 ; LRG 20 ; CM = 18985 ; FM = 0 ;

CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 51 to Attach 3 of App B; HS Ser # 51, SALT TI # 2 B10B () - - CA Ser # 58, SALT TI # 2 A 12B ()

Description: SURVIVAL 2182 KHZ LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' / DF	196	5.0	2.5	2.0	2.544	30.0	
/TCV, CPL, ANT	196	8.3	4.15	3.32	1.2	30.0	
/							
/							
Sp Eq:	32	*(2606.8)	(1303.4)	(1042.7)	(733.8)	(60.0)	5746.7
		13.3					425.6

Test Equip (); Initial Training (50.0); Misc Costs () GACI = 50.0
TOTAL 6222.3

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 0 = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of *(2606.8)
Recurring Training Cost (8.0); Landline Cost (); Misc Costs () GAOM = 421.7
TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.
ARG 0; LRG 32; CM = 18985; FM = 10000;
CUP = 10; FUP = 90; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 52 to Attach 3 of App B; HS Ser # 52, SALTTI # 2 B10C () - - C.A Ser # , SALTTI # A ()

Description: SURVIVAL 8346 KHZ LOCATED BY SHIP DF/HOMING (DSB)

Remarks: Same as HS #28 (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' /	196	5.0	2.5	2.0	1.7	30.0		
/								
/								
/								
Sp Eq:	32	5.0						2225.2
								160.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () GACI = 50.0
TOTAL 2435.2

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of * (980.0) 98.0
Recurring Training Cost (8.0) ; Landline Cost () ; Misc Costs () GAOM = 8.0
TOTAL 259.0

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (1976 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.

ARG 0 ; LRG 20 ; CM = 18985 ; FM = 0 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 53 to Attach 3 of App B; HS Ser # 53, SALTII #3 B1A () - - C.A Ser # 59, SALTII # 3 A 1A ()

Description: INSTALLED 500 KHZ ALERTS AND REPORTS LOCATION VIA SHORE STATIONS

Remarks: (For AL only: AO Ser # 1, LO Ser # 15)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2Xm2Rec	12	12	32.0			10.0		
/ Remotes	4	4	12.0					
/								
/								
			*(432.0)	()	()	(120.0)	()	552.0

Sp Eq: _____

Test Equip () ; Initial Training () ; Misc Costs () ; GACI = 552.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of *(432.0)
 Recurring Training Cost () ; Landline Cost (10.0) ; Misc Costs ()
 TOTAL GAOM = 767.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651 ; NM = 5 ; LF = 82 percent.
 ARG 270 ; LRG 270 ; CM = 18985 ; FM = 0 ;
 CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 54 to Attach 3 of App B; HS Ser # 54, SALTII # 3 B 1B () - - C.A Ser # 60, SALTII # 3 A 1B ()

Description: INSTALLED 2182 KHZ ALERTS AND REPORTS LOCATION VIA SHORE STATION

Remarks: (For AL only: AO Ser # 2, LO Ser # 16)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80	7.0						
/								
/								
/								
			* (560.0)	()	()	()	()	560.0
Sp Eq:	8	7.0						56.0

Test Equip () ; Initial Training () ; Misc Costs () ; 616 x 4/3 Great Lakes GACI = 821.3

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50 Units, 5 per Unit + 0 = 250 Total personnel times \$10,200 pa. 2550.0
 Annual Maintenance Cost: 10 percent of * () 16.0
 Recurring Training Cost () ; Landline Cost (192.0) ; Misc Costs () 192.0
 TOTAL 2758.0 x 4/3 Great Lakes GAOM = 3677.3

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 1500 (1974 \$); QUAN = 2821 ; NM = 10 ; LF = 85 percent.
 ARG 70 ; LRG 70 ; CM = 18985 ; FM = 10000 ;
 CUP = 10 ; FUP = 90 ; AUP = 0 ;

Encl 55 to Attach 3 of App B; HS Ser # 55, SALTTI # 3 B 1C () - - CA Ser # , SALTTI # A ()

Description: INSTALLED L-BAND RELAYS ALERT AND LOCATION TO RCC

Remarks:

(For AL only: AO Ser # 3, LO Ser # 17)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	# Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost ____ Years	SUB-TOTAL
Mission Satellites	_____	_____	_____	_____	_____	_____
Launches	_____	_____	_____	_____	_____	_____
Ground Stations	_____	_____	_____	_____	_____	_____
On-Orbit Spare Satellites	_____	_____	_____	_____	_____	_____
Launches	_____	_____	_____	_____	_____	_____
			() () () () () ()			

Tariff Service

Test Equip (_____); Initial Training (_____); Misc Costs (_____)
TOTAL GACI = 0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (_____); Landline Cost (6.0); Misc Costs (_____)

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 52545 (197 6 \$) based on production of 600/3 . Installation Cost \$ 3000

Lease Cost \$	15300	(197 6 \$) per year.	* Installation Costs \$	3000
---------------	-------	----------------------	-------------------------	------

b. System Data: $UUC = \$ \frac{48300}{(1974 \$)}$; $QUAN = 200$; $NM = 3$; $LF = 82$ percent.

ARG 0 ; LRG 999 ; CM = 5000 ; FM = 0 ;

CUP = 0; FUP = 0; AUP = 0

* For 5 years

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 56 to Attach 3 of App B; HS Ser # 56, SALTTI # 3 B 1D () - - CA Ser # , SALTTI # A ()

Description: INSTALLED HF ALERTS AND REPORTS LOCATION VIA SHORE STATION

Remarks: (For AL only: AO Ser # 4, LO Ser # 18)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Unit	Sp MA	Sp Comp	Installation	Document	SUB-TOTAL
Radio Sta /	9	Cost	Cost 50%	Cost 40%	Cost	Cost	
/		300.0			100.0		
/							
/							
		*(2700.0)	()	()	(900.0)	()	3600.0

Sp Eq: Included

Test Equip (); Initial Training (); Misc Costs () GACI = 3600.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of *(2700.0)
 Recurring Training Cost (); Landline Cost (10.0); Misc Costs () GAOM = 841.0
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (197 6 \$) based on production of 1800/8. Installation Cost \$ Incl
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225 ; NM = 5 ; LF = 82 percent.
 ARG 25 ; LRG 25 ; CM = 18985 ; FM = 0 ;
 CUP = 0 ; FUP = 0 ; AUP = 0 ;

Encl 57 to Attach 3 of App B; HS Ser # 57, SALTTI # 3 B 2A () - - CA Ser # 62, SALTTI # 3 A 2A ()

Description: INSTALLED 500 KHZ ALERTS AND LOCATED BY SHORE DF

Remarks: _____
(For AL only: AO Ser # 1, LO Ser # 19)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / DF Ant & Eq	12	50.0			25.0		
Remote /	4	50.0			25.0		
/							
* (800.0) () () ()					400.0		1200.0

Sp Eq:

Test Equip (_____); Initial Training (_____); Misc Costs _____)

TOTAL **GACI = 1200.0**

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, $\frac{5}{10}$ per Unit + $\frac{10}{800.0} = \frac{70}{800.0}$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: $\frac{10}{10}$ percent of * (800.0) 80.0

Recurring Training Cost (); Landline Cost (10.0); Misc Costs Mod (2.0) 12.0

TOTAL GAOM = 806.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197) based on production of . Installation Cost \$
Lease Cost \$ (197) per year. Installation Costs \$.
b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651 ; NM = 5 ; LF = 82 percent.
ARG 270 ; LRG 200 ; CM = 18985 ; FM = 0 ;
CUP = 100 ; FUP = 0 ; AUP = 0 ;

Encl 58 to Attach 3 of App B; HS Ser # 58, SALTTI # 3 B 2B () - - CA Ser # , SALTTI # A ()

Description: INSTALLED HF ALERTS AND LOCATED BY SHORE DF

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
/ DF							
/							
/							
		* (2700.0)	()	()	(900.0)	()	3600.0

Sp Eq: Included

Test Equip (_____); Initial Training (_____); Misc Costs _____
TOTAL GACI = 3600.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, $\frac{5}{55}$ per Unit + $\frac{10}{55}$ = $\frac{55}{55}$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(2700.0)

Recurring Training Cost (_____); Landline Cost (10.0); Misc Costs (_____)

TOTAL	GAOM = <u><u>841.0</u></u>
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2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (197 6 \$) based on production of 1800/8. Installation Cost \$ Incl
Lease Cost \$ (197 \$) per year. Installation Costs \$.

b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225; NM = 5; LF = 82 percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 0

CUP = 0; FUP = 0; AUP = 0;

Encl 59 to Attach 3 of App B; HS Ser # 59, SALTTI # 3 B 3A () - - C A Ser # 65, SALTTI # 3 A 3A ()

Description: INSTALLED 500 kHz ALERTS VIA SHORE STATIONS, LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____, LO Ser # _____)

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2 Xm 2 Rcv	12	32.0			10.0		
/ Remotes	4	12.0					
All A/C / ARN-89	156	4.5	40 x 2.25	4 x 1.8	3.0	25.0	
/							
		* (1134.0)	(90.0)	(7.2)	(588.0)	(25.0)	1844.2
Sp Eq: AS	20	4.5					
							90.0

Test Equip (<u>75.0</u>);	Initial Training (<u>12.8</u>);	Misc Costs	(<u> </u>)	87.8
TOTAL				GACI = 2022.0

Personnel: 12 Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (1134.0) 113.4
 Recurring Training Cost (12.8); Landline Cost (10.0); Misc Costs () 10.0
TOTAL 837.4 GAOM =

a. Quotation: Unit Cost \$ _____ (197__ \$) based on production of _____. Installation Cost \$ _____

b. System Data: UUC = \$ 17000 (1974 \$); QUAN = 3651; NM = 5; LF = 82 percent.

CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 60 to Attach 3 of App B; HS Ser # 60, SALTII # 3 B 3B () - - CA Ser # 66, SALTII # 3 A 3B ()

Description: INSTALLED 2182 kHz ALERTS VIA SHORE STATIONS, LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # 2, LO Ser # 22)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /		80 x 4/3	7.0					
All A/C / ARN-89		156	4.5	40 x 2.25	4 x 1.8	0.45	25.0	
/ ARC-94		156	12.0	40 x 6.0	4 x 4.8	1.2	25.0	
/								
			* (3320.7)	(330.0)	(26.4)	(257.4)	(50.0)	3984.5

Sp Eq:		8 x 4/3	7.0					
AS ARN-89		20	4.5					764.7
ARC-94		50	12.0					

Test Equip (75.0)		Initial Training (12.8)		Misc Costs		()		87.8
TOTAL							GACI =	4836.9

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50 Units,	5	per Unit + 0 = 250	Total personnel times \$10,200 pa. x 4/3	3400.0
Annual Maintenance Cost: 10 percent of *	(2574.0)	+ 16.0 x 4/3		278.7
Recurring Training Cost (12.8)		Landline Cost (192.0x4/3)	Misc Costs ()	268.8
TOTAL			GAOM =	3947.5

2. User Cost Data

- Quotation: Unit Cost \$ (197) based on production of . Installation Cost \$
Lease Cost \$ (197) per year. Installation Costs \$.
- System Data: UUC = \$ 1500 (1974 \$); QUAN = 2821 ; NM = 10 ; LF = 85 percent.
ARG 70 ; LRG 60 ; CM = 18985 ; FM = 10000 ;
CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 61 to Attach 3 of App B; HS Ser # 61, SALTII # 3B3C () - - CA Ser # - , SALTII # -A - ()

Description: INSTALLED HF ALERTS VIA SHORE STATIONS, LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # 4, LO Ser # 24)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
All A/C /	156	3.0	40 x 1.5	4 x 1.2	1.0	25.0	
/							
/							
		* (3168.0)	(60.0)	(4.8)	(1056.0)	(25.0)	4313.8
Sp Eq: AS	20	3.0					60.0

Test Equip (75.0); Initial Training (12.8); Misc Costs _____ (_____) GACI = 87.8
 TOTAL 4461.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa. 561.0
 Annual Maintenance Cost: 10 percent of * (3168.0) 316.8
 Recurring Training Cost (12.8); Landline Cost (10.0); Misc Costs _____ (_____) 22.8
 TOTAL 900.6

2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (1976 \$) based on production of 1800/8. Installation Cost \$ Incl
 Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 8520 (1974 \$); QUAN = 225; NM = 5; LF = 82 percent.

ARG 25; LRG 25; CM = 18985; FM = 0;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 62 to Attach 3 of App B; HS Ser # 62, SALTII # 3 B 4A () - - CA Ser # 68, SALTII # 3 A 4A ()

Description: INSTALLED 500 kHz ALERTS VIA SHORE STATION, LOCATED BY SHIP DF/HOMING

Remarks: _____ (For AL only: AO Ser # 1, LO Ser # 25)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2 Xm 2 Rcv	12	12	32.0			10.0		
/ Remotes	4	4	12.0					
Ves over 821 / DF	196	196	5.0	2.5	2.0	2.544	30.0	
/ Xmit. Comp,	196	196	11.0	5.0	4.0	6.0	30.0	
Ant			*(3568.0)	(1470.0)	(1176.0)	(1794.6)	(60.0)	8068.6
Sp Eq:	32	32	16.0					512.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () ; GACI = 50.0
TOTAL 8630.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, 5 per Unit + 25 = 85 Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of *(3568.0)
Recurring Training Cost (8.0) ; Landline Cost (10.0) ; Misc Costs ()
TOTAL GAOM = 1241.8

2. User Cost Data

a. Quotation: Unit Cost \$ (197) \$ based on production of . Installation Cost \$
Lease Cost \$ (197) \$ per year. Installation Costs \$
b. System Data: UUC = \$ 17000 (1974 \$) ; QUAN = 3651 ; NM = 5 ; LF = 82 percent.
ARG 270 ; LRG 200 ; CM = 18985 ; FM = 0 ;
CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 63 to Attach 3 of App B; HS Ser # 63, SALTII # 3 B 4B () - - CA Ser # 69, SALTII # 3 A 4B ()

Description: INSTALLED 2182 kHz ALERTED VIA SHORE STATION, LOCATED BY SHIP DF/HOMING

Remarks: _____ (For AL only: AO Ser # 2, LO Ser # 26)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80 x 4/3		7.0					
Ves over 821/ TCUR URC058	196		5.0	2.5	2.0	2.544	30.0	
/ Comp & Ant	196		8.3	4.15	3.32	1.2	30.0	
/								
			* (3353.5)	(1303.4)	(1042.7)	(733.8)	(60.0)	6493.4
Sp Eq:	8 x 4/3		7.0					
	32		13.3					500.3

Test Equip (_____); Initial Training (50.0); Misc Costs _____ (_____) GACI = 50.0
TOTAL 7043.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 4/3x50 Units, 5 per Unit + 15 = 348.3 Total personnel times \$10,200 pa. 3553.0
Annual Maintenance Cost: 10 percent of * (2606.8) + 4/3 x 16 282.0
Recurring Training Cost (8.0); Landline Cost (1920x4/3); Misc Costs _____ (_____) 264.0
TOTAL 4099.0 GAOM = _____

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____
Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____
b. System Data: UUC = \$ 1500 (1974 \$); QUAN = 2821; NM = 10; LF = 85 percent.
ARG 70; LRG 60; CM = 18985; FM = 10000;
CUP = 10; FUP = 90; AUP = 0;

Encl 64 to Attach 3 of App B; HS Ser # 64, SALTTI # 3 B4C () - - CA Ser # -, SALTTI # - A - ()

Encl 64 to Attach 3 of App B; HS Ser # 64, SALTTI # 3 B4C () - - CA Ser # -, SALTTI # - A - ()

Description: INSTALLED HF ALERTS VIA SHORE STATIONS, LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # 4 , LO Ser # 28)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
Ves over 821/	196	5.0	2.5	2.0	1.7	30.0	
/							
/							
		* (3680.0)	(490.0)	(392.0)	(1233.2)	(30.0)	5825.2
Sp Eq: _____	32	5.0					160.0

Test Equip (); Initial Training (50.0); Misc Costs () 50.0

TOTAL **GACI = 6035.2**

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 Sta Units, 5 per Unit + 25 = 70 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(3680.0)

Recurring Training Cost (8.0); Landline Cost (10.0); Misc Costs ()

TOTAL	GAOM =	1100.0
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2. User Cost Data

a. Quotation: Unit Cost \$ 9800 (1976 \$) based on production of 1800/8 . Installation Cost \$ Incl

Lease Cost \$	(197	\$) per year.	Installation Costs \$
5000			

b. System Data: $UUC = \$ 8520$ (1974 \$); $QUAN = 225$; $NM = 5$; $LF = 82$ percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 0 ;

ARG 23 ; LRG 23 ; CM = 18989 ; FM
CUP= 0 ; FUP= 0 ; AUP= 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 65 to Attach 3 of App B; HS Ser # 65, SALTTI # 3 B 5A () - - CA Ser # 79, SALTTI # 3 A 7A ()
 Description: EPIRB 121.5/243 MHz ALERTS BY AIRCRAFT OVERFLIGHT, LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # 6, LO Ser # 32)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H 16, HC130, H3 / DF301		89	3.0	25+15x1.5	4 x 1.2	3.0 2.5 3.0		
H 52 / SMSE 47-2		2.5	2.5	25+15x1.25	4 x 1.0		50.0	
/ Radios		156	4.5	25+15x2.25	4 x 1.8			
			* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0
Sp Eq: AS + Pipeline		50 + 4	4.5					
DF 301		20	3.0					353.0
DMSE 47-2		20	2.5					
Test Equip (50.0)					Misc Costs	()	GACI =	50.0
TOTAL								2708.0
b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)								
Personnel: 20 Units,	5	per Unit +	0	=	320	Total personnel times \$10,200 pa.		
Annual Maintenance Cost:	10	percent of *	(1136.5)					3264.0
Recurring Training Cost ()					Misc Costs Lease	1000.0		113.6
TOTAL							GAOM =	1000.0
								4377.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 5 per Unit + 0 = 320 Total personnel times \$10,200 pa. 3264.0
 Annual Maintenance Cost: 10 percent of * (1136.5) 113.6
 Recurring Training Cost () ; Landline Cost () ; Misc Costs Lease 1000.0) 1000.0
 TOTAL GAOM = 4377.6

2. User Cost Data

a. Quotation: Unit Cost \$ (197) \$ based on production of . Installation Cost \$
 Lease Cost \$ (197) \$ per year. Installation Costs \$
 b. System Data: UUC = \$ 200 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.
 ARG 0 ; LRG 30 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

Encl 66 to Attach 3 of App B; HS Ser # 66, SALT TI # 3 B 5B () - - CA Ser # 80, SALT TI # 3 A 7B ()

Description: EPIRB 2182 MHZ ALERTS AND LOCATED BY AIRCRAFT DF/HOMING

Remarks:

(For AL only: AO Ser # 5, LO Ser # 30)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta /	80 x 4/3	7.0					
All A/C / ARN-89	156	4.5	40 x 2.25	4 x 1.8	.45	25.0	
/							
/							
		* (1448.7)	(90.0)	(7.2)	(70.2)	(25.0)	1641.0
Sp Eq:	8 x 4/3	7.0					
AS ARN-89	20	4.5					164.7

Test Equip (75.0); Initial Training (12.8); Misc Costs (87.8)

TOTAL **GACI = 1893.5**

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50 Units, 5 per Unit + 0 = 250 Total personnel times \$10,200 pa. x4/3 3400.0
 Annual Maintenance Cost: 10 percent of * (702.0) + 4/3 x 16 91.5
 Recurring Training Cost (12.8); Landline Cost (192.0x4/3); Misc Costs () 268.8
 TOTAL GAQM = 3760.3

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of .
Lease Cost \$ (197 \$) per year. Installation Costs \$.
Installation Cost \$.

b. System Data: UUC = \$ 350 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.

ARG 16 ; LRG 16 ; CM = 18985 ; FM = 10000 ;

CUP = 10; FUP = 90; AUP = 0

SYSTEM PARAMETER DATA SHEET (Satellite)

Page 1 of 2

Encl 67 to Attach 3 of App B; HS Ser # 67, SALTII # 3 B5C (S) - - CA Ser # 81, SALTII # 3 A7C (S)
 Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser # -)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	12000.0		
Launches	1	1	3250.0	6500.0			
Ground Stations	2	2	8000.0	8000.0	8000.0		
On-Orbit Spare Satellites	1	1					
Launches	1	1					
				(26500.0)	(20000.0)	(35080.0)	61580.0

Test Equip () ; Initial Training () ; Misc Costs () GACI = 61580.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost () ; Landline Cost (15.0) ; Misc Costs OE (800.0)
 TOTAL GAOM = 917

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	1072.2	83.0
TOTAL	62652.2	1000.0

page 1 of 2

Remarks: (For AL only: AO Ser # , LO Ser # 30)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50% 40x2.25	Sp Comp Cost 40% 4 x 1.8	Installation Cost	Document Cost	SUB-TOTAL
All A/C / ARN-89	156	4.5			.45	25	
/							
/							
/							
Sp Eq: A/S ARN-89	20	4.5					894.4
							90.0

Test Equip (75.0); Initial Training (12.8); Misc Costs () GACI = 1072.2
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (702)
 Recurring Training Cost (12.8); Landline Cost (); Misc Costs () GAOM = 83.0
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.
 ARG 37; LRG 32; CM = 18985; FM = 1000;
 CUP = 10; FUP = 90; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 68 to Attach 3 of App B; HS Ser # 68, SALTII # 3B5C (D) - - CA Ser # 82, SALTII # 3A7C (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs ()

GACI = 113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)

TOTAL GAOM = 1059.8

COMBINED TOTALS

GACI GAOM

Satellite Portion 113210.0 1059.8

Terrestrial Portion 1072.2 83.0

TOTAL 114282.2 1143.0

Encl 68.1 to Attach 3 of App B; HS Ser # 68, SALTII # 3 B 5C (D) - - C.A Ser # 82, SALTII # 3 A 7C (D)
Description: LOCATED BY 2182 KHZ AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # 30)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50% 40 x 2.25	Sp Comp Cost 40% 4 x 1.8	Installation Cost	Document Cost	SUB-TOTAL
Alt A/C / ARN-89	156		4.5			.45	25.0	
/								
/								
/								
Sp Eq: A/S ARN-89	20		4.5					894.4
								90.0

Test Equip (75.0); Initial Training (12.8); Misc Costs _____ (_____) GACI = 1072.2
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * (702.0)
Recurring Training Cost (12.8); Landline Cost (_____); Misc Costs _____ (_____)
TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 \$) based on production of _____. Installation Cost \$ _____
Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____
b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.
ARG 37; LRG 32; CM = 18985; FM = 10000;
CUP = 10; FUP = 90; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 69 to Attach 3 of App B; HS Ser # 69, SALTII # 3 B 5D (S) - - CA Ser # 83, SALTII # 3 A 7D (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	2	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches							
				(26500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0

TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2708.0	317.6
TOTAL	64288.0	1235.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 69.1 to Attach 3 of App B; HS Ser # 69, SALTTI # 3 B 5D (S) - - CA Ser # 83, SALTTI # 3 A 7D (S)

Description: LOCATED BY 121.5/243 MHZ AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser # 32)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H31 DF 301	89	3.0	25+15 1.5	4 x 1.2	3.0		
H52 / DMSE 47-2	67	2.5	25+15 1.25	4 x 1.0	2.5		
/ Radios	156	4.5	25+15 2.25	4 x 1.8	3.0		
/							
		* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0
Sp Eq: A/S & Pipeline	50+4	4.5					
DF 301	20	3.0					353.0
DMSE 47-2	20	2.5					
Test Equip (50.0)		Initial Training ()		Misc Costs ()			50.0
TOTAL						GACI =	2708.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + 0 = 20 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (1136.5)
 Recurring Training Cost () ; Landline Cost () ; Misc Costs () ; GAOM =
 TOTAL 204.0
 113.6
 317.6

2. User Cost Data

a. Quotation: Unit Cost \$ (197) \$ based on production of . Installation Cost \$
 Lease Cost \$ (197) \$ per year. Installation Costs \$
 b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.
 ARG 0 ; LRG 30 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 70 to Attach 3 of App B; HS Ser # 70, SALT TI # 3 B 5D (D) - - CA Ser # 84, SALT TI # 3 A 7D (D)
 Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 1059.8

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	2708.0	317.6
TOTAL	115918.0	1377.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 70.1 to Attach 3 of App B; HS Ser # 70, SALTII # 3 B5D (D) - - CA Ser # 84, SALTII # 3 A7D (D)

Description: LOCATED BY 121.5/243 MHZ AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser # 32)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H3 / DF301	89	3.0	25+15 2.5	4 x 1.2	3.0			
H52 / DMSE 47-2	67	2.5	25+15 1.25	4 x 1.0	2.5			
/ Radios	156	4.5	25+15 2.25	4 x 1.8	3.0			
Sp Eq: A/S & Pipeline	50 + 4	*	(1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0
DF 301	20		4.5					353.0
DMSE 47-2	20		3.0					
Test Equip (50.0); Initial Training ()								50.0
TOTAL								2708.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit +0 = 20	Total personnel times \$10,200 pa.	204.0
Annual Maintenance Cost: 10 percent of * (11365)		113.6
Recurring Training Cost ()	Landline Cost ()	
TOTAL	Misc Costs ()	
	GAOM =	317.6

2. User Cost Data

- a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.
 ARG 0; LRG 30; CM = 18985; FM = 10000;
 CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 71 to Attach 3 of App B; HS Ser # 71, SALTII # 3 B 5E (S) - - CA Ser # 85, SALTII # 3 A 7E (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	2	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches							
				(26500.0)	(20000.0)	(35080.0)	61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * ()
Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2527.5	317.6
TOTAL	64108.0	1235.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 71.1to Attach 3 of App B; HS Ser # 71, SALT TI # 3 B5E (S) - - CA Ser # 85, SALT TI # 3 A7E (S)

Description: LOCATED BY VHF-FM AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # 29)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC-130, H3 DF 301	89	3.0	3.0	25+15 1.5	4 x 1.2	3.0		
H52 / DSME 47-2	67	2.5	2.5	25+15 1.25	4 x 1.0	2.5	5.0	
/ ARC-160	156	4.5	4.5	25+15 2.25	4 x 3.0	3.0		
Sp Eq: A/S DF-301	20		*(1136.0)	(200.0)	(902.5)	(902.5)	(5.0)	2259.5
A/S DMSE 47-2	20		3.0					218.0
A/S & PL ARC-160	20 + 4		2.5					
			4.5					

Test Equip (50.0); Initial Training (_____); Misc Costs _____ (_____) GACI = 2527.5

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 A/S Units, 1 per Unit + 0 = 20 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of *(1136.5)
 Recurring Training Cost (_____); Landline Cost (_____); Misc Costs _____ (_____) GAOM = 317.6
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____
 Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____
 b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.
 ARG 25; LRG 25; CM = 18985; FM = 10000;
 CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 72 to Attach 3 of App B; HS Ser # 72, SALTII # 3 B 5E(D) - - CA Ser # 86, SALTII # 3 A7E (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs ()

TOTAL

GACI = 113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc CostsOE (8000.0)

TOTAL

GAOM = 1059.8

COMBINED TOTALS

GACI GAOM

Satellite Portion

113210.0 1059.8

Terrestrial Portion

2527.5 317.6

TOTAL

115738.0 1377.0

Encl 72.1to Attach 3 of App B; HS Ser # 72, SALTII # 3 B5E (D) - - C.A Ser # 86, SALTII # 3 A 7E (D)

Description: LOCATED BY VHF-FM AIRCRAFT DF/HOMING

(For AL only: AO Ser # _____, LO Ser # 29)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC-130, H3/ DF 301	89	3.0	25+15 1.5	4 x 1.2	3.0		
/ DSME 47-2	67	2.5	25+15 1.25	4 x 1.0	2.5	5.0	
/ ARC-160	156	4.5	25+15 2.25	4 x 3.0	3.0		
/							
		* (1136.0)	(200.0)	(902.5)	(902.5)	(5.0)	2259.5

Sp Eq: A/S DF3-1

A/S DSME 47-2

A/S & PL ARC-160

Test Equip (50.0); Ir

TOTAL

b. Annual Recurring

Personnel: 20 A/S Units.

Annual Maintenance Cost:

Recurring Training Cost (

TOTAL.

ERROR

2. User Cost Data

a. Quotation: Unit Cos

Lease Co

b. System Data: UUC

ARG

CUP

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SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 73 to Attach 3 of App B; HS Ser # 73, SALTII #3 B5F (S) - - CA Ser # 87, SALTII # 3 A7F (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	1	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches	1	1					
				(16500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
 TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2708.0	317.6
TOTAL	64288.0	1235.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 73.1 to Attach 3 of App B; HS Ser # 73, SALTII # 3 B5F (S) - - CA Ser # 87, SALTII # 3 A 7F (S)

Description: LOCATED BY UHF-AM AIRCRAFT DF/HOMING

Remarks:

(For AL only: AO Ser # , LO Ser # 31)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H3 / DF 301		89	3.0	25+15 1.5	4 x 1.2	3.0		
H52 / DSME 47-2		67	2.5	25+15 1.25	4 x 1.0	2.5		
/Radios		156	4.5	25+15 2.25	4 x 1.8	3.0		
				(1)	(1)			
			* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0

Sp Eq: A/S & Pipeline 50 + 4 4.5 353.0

DF 301

DSME 47-2

Test Equip (50.0); Initial Training (); Misc Costs () GACI = 50.0 2708.0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + = 20 Total personnel times \$10,200 pa. 204.0

Annual Maintenance Cost: 10 percent of * (1136.5) 113.6

Recurring Training Cost (); Landline Cost (); Misc Costs () GAOM =

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$ Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 74 to Attach 3 of App B; HS Ser # 74, SALTII # 3 B 5F (D) - - CA Ser # 88, SALTII # 3 A 7F (D)
 Description: EPRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0	10000.0	
On-Orbit Spare Satellites	1	1	10000.0	10000.0		5000.0	
Launches	1	1	5000.0				
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * () 244.8
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 1059.8

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	2708.0	317.6
TOTAL	115918.0	1377.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 74.1 to Attach 3 of App B; HS Ser # 74, SALTII # 3 B5F (D) - - C.A Ser # 88, SALTII # 3 A7F (D)

Description: LOCATED BY UHF-AM AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser # 31)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H3 / DF301	89		3.0	25+15 1.5	4 x 1.2	3.0		
/ DMSE 47-2	67		2.5	25+15 1.25	4 x 1.0	2.5		
/ Radios	156		4.5	25+15 2.25	4 x 1.8	3.0		
/				(1)	(1)			
Sp Eq: A/S & Pipeline	50 + 4		* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0
DF 301	20		4.5					353.0
DSME 47-2	20		3.0					50.0
Test Equip (50.0)								2708.0
TOTAL								

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + 20	Total personnel times \$10,200 pa.	204.0
Annual Maintenance Cost: 10 percent of * (1136.5)		113.6
Recurring Training Cost ()	Misc Costs ()	
TOTAL	GAOM =	317.6

2. User Cost Data

- a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.
 ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 75 to Attach 3 of App B; HS Ser # 75, SALT TI # 3 B 5G (S) - - C-A Ser # 89, SALT TI # 3 A 7G (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	7 Years	
Launches	1	1	3250.0	6500.0	Included	12000.0	
Ground Stations	2	2	8000.0	8000.0			
On-Orbit Spare Satellites	1	1				8000.0	
Launches	1	1					
				(26500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)
 Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa. 102.0
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2708.0	317.6
TOTAL	64288.0	1235.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 75.1 to Attach 3 of App B; HS Ser # 75, SALTTI # 3 B5G (S) - - CA Ser # 89, SALTTI # 3 A5G (S)

Description: LOCATED BY UHF-AM AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser # 33)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
H16, HC13-, H3 / DF 301	89		3.0	25+15 1.5	4 x 1.2	3.0		
/ DSME 47-2	67		2.5	25+15 1.25	4 x 1.0	2.5		
/ Radios	156		4.5	25+15 2.25	4 x 1.8	3.0		
/				(1)	(1)			
			* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)	2305.0

Sp Eq: A/S & Pipeline 50 + 4 4.5
 DF 301 20 3.0
 DSME 47-2 20 2.5

Test Equip (50.0); Initial Training (); Misc Costs ()
 TOTAL GACI = 2708.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + 20 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (1136.5)
 Recurring Training Cost (); Landline Cost (); Misc Costs ()
 TOTAL GAOM = 317.6

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.
 ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 76 to Attach 3 of App B; HS Ser # 76, SALTTI # 3 B5G (D) - - CA Ser # 90, SALTTI # 3 A7G (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.0)
							113210.0

Test Equip (); Initial Training (); Misc Costs (); GACI = 113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0

TOTAL GAOM = 1059.8

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	2708.0	317.6
TOTAL	115918.0	1377.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 76.1 to Attach 3 of App B; HS Ser # 76, SALT TI # 3 B 5G (D) - - CA Ser # 90, SALT TI # 3 A 7G (D)

Description: LOCATED BY UHF-AM AIRCRAFT DF/HOMING

Remarks:

(For AL only: AO Ser # , LO Ser # 33)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50% 25+15 1.5	Sp Comp Cost 40% 4 x 1.2	Installation Cost	Document Cost	SUB-TOTAL
H16, HC130, H3 / DF301	89		3.0	25+15 1.5	4 x 1.2	3.0		
H52 / DSME 47-2	67		2.5	25+15 1.25	4 x 1.0	2.5		
/ Radios	156		4.5	25+15 2.25	4 x 1.8	3.0		
				(1)	(1)			
Sp Eq: A/S + Pipeline		* (1136.5)	(200.0)	(16.0)	(902.5)	(50.0)		2305.0
DF 301	50 + 4	4.5						353.0
DMSE 47-2	20	3.0						50.0
Test Equip (50.0)	20	2.5						2708.0
TOTAL								

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 20 Units, 1 per Unit + 20 Total personnel times \$10,200 pa. 204.0
 Annual Maintenance Cost: 10 percent of * (1136.5) 113.6
 Recurring Training Cost () ; Landline Cost () ; Misc Costs () GAOM = 317.6
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.
 ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 77 to Attach 3 of App B; HS Ser # 77, SALTTI # 3B6A () - - CA Ser # 91, SALTTI # 3A8A ()

Description: EPIRB 121.5/243 MHZ ALERTS BY AIRCRAFT OVERFLIGHT, LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # 6, LO Ser # 37)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
WMEC 205' /	46	2.0			3.62	30.0	
/							
/							
/							
		* (92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8	2.0					16.0

Test Equip () ; Initial Training () ; Misc Costs () ; GACI = 342.9

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 60 Units, 5 per Unit + 15 = 315 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (92.0)
 Recurring Training Cost () ; Landline Cost () ; Misc Costs Lease 1000.0)
 TOTAL GAOM = 4222.2

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 200 (1974 \$) ; QUAN = 3000 ; NM = 8 ; LF = 88 percent.
 ARG 0 ; LRG 10 ; CM = 18985 ; FM = 10000 ;
 CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 78 to Attach 3 of App B; HS Ser # 78, SALTII # 3 B 6B () - - CA Ser # 92, SALTII # 3 A 8B ()

Description: EPIRB 2182 MHZ ALERTS AND LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # 5, LO Ser # 35)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta / Great Lakes	80	7.0						
Ves 782'	196	5.0		2.5	10 x 2.0	2,544	30.0	
Sp Eq: Remote Sta GL x 4/3	8	7.0	1726.7	490.0	20.0	498.6	30.0	2765.3
Vessel 782'	32	5.0						234.7

Test Equip (); Initial Training (50.0); Misc Costs (); GACI = 3049.6

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50x4/3 Units, 5 per Unit + 15 = 348.3 Total personnel times \$10,200 pa. 3553.0
 Annual Maintenance Cost: 10 percent of * (980.0) + 16.0 x 4/3 119.3
 Recurring Training Cost (8.0); Landline Cost (192.0x4/3); Misc Costs () 264.0
 TOTAL GAOM = 3936.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
 Lease Cost \$ (197 \$) per year. Installation Costs \$
 b. System Data: UUC = \$ 350 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.
 ARG 16 ; LRG 16 ; CM = 18985 ; FM = 10000 ;
 CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 79 to Attach 3 of App B; HS Ser # 79, SALTII # 3 B 6C (S) - - CA Ser # 93, SALTII # 3 A 8C (S)
 Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	Units	#	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	1		12000.0	12000.0	Included	7 Years	
Launches	1					12000.0	
Ground Stations	2		3250.0	6500.0	Included		
On-Orbit Spare Satellites	1		8000.0	8000.0		8000.0	
Launches	1						
				(16500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * () 102.0
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2228.6	259.0
TOTAL	63809.0	1176.0

Encl 79.1 to Attach 3 of App B; HS Ser # 79, SALTII # 3 B6C (S) - - CA Ser # 93, SALTII # 3 A8C (S)

Description: LOCATED BY 2182 KHZ SHIP DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # 35 _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' /	196	5.0	2.5	10 x 2.0	2.544	30.0	
/							
/							
/							
		*(980.0)	(490.0)	(20.0)	(498.6)	(30.0)	2018.6
Sp Eq: _____	32	5.0					160.0

Test Equip (); Initial Training (50.0); Misc Costs () 50.0
TOTAL 2228.6 GACI =

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = $\frac{15}{15}$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(980.0)

Recurring Training Cost (8.0); Landline Cost (); Misc Costs ()

TOTAL	<u>GAOM = 259.0</u>
--------------	---------------------

2. User Cost Data

a. Quotation: Unit Cost \$ ____ (197 __ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: $\overline{UUC} = \$ 900$ (1974 \$); $\overline{QUAN} = 3000$; $NM = 5$; $\overline{LF} = 88$ percent.

ARG 37 ; LRG 32 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 80 to Attach 3 of App B; HS Ser # 80, SALTII # 3 B 6C (D) - - CA Ser # 94, SALTII # 3 A 8C (D)
 Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
			(40000.0)	(5000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0
 TOTAL GAOM = 1059.8

COMBINED TOTALS

GACI GAOM

Satellite Portion

113210.0 1059.8

Terrestrial Portion

2228.6 259.0

TOTAL

115439.0 1319.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 80.1 to Attach 3 of App B; HS Ser # 35, SALTII # 3 B 6C (D) - - CA Ser # 94, SALTII # 3 A8C (D)

Description: LOCATED BY 2182 KHZ SHIP DF/HOMING

Remarks: _____

(For AL only: AO Ser # _____, LO Ser # 35)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40% 10 x 2.0	Installation Cost	Document Cost	SUB-TOTAL
Ves over 82' /	196		5.0	2.5		2.544	30.0	
/								
/								
/								
		*	(980.0)	(490.0)	(20.0)	(498.6)	(30.0)	2018.6

Sp Eq: _____ 32 _____ 5.0 _____ 160.0

Test Equip (_____); Initial Training (50.0); Misc Costs _____ (_____) 50.0
TOTAL GACI = 2228.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of *(980.0) 98.0
Recurring Training Cost (8.0); Landline Cost (_____); Misc Costs _____ (_____) 8.0
TOTAL GAOM = 259.0

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 \$) based on production of _____, Installation Cost \$ _____

Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 37; LRG 32; CM = 18985; FM = 10000;

CUP = 10; FUP = 90; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 81 to Attach 3 of App B; HS Ser # 81, SALTII # 3 B6D (S) - - CA Ser # 95, SALTII # 3 A 8D (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	
					Included	7 Years	
Mission Satellites	1	1	12000.0	12000.0		12000.0	SUB-TOTAL
Launches	1	1					
Ground Stations	2	2	3250.0	6500.0	Included		
On-Orbit Spare Satellites	1	1	8000.0	8000.0		8000.0	
Launches	1	1					
				(26500.0)	()	(10000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * ()
Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
TOTAL GAOM = 917.0

COMBINED TOTALS

GACI GAOM

Satellite Portion	61580.0	917.0
Terrestrial Portion	342.9	162.2
TOTAL	61923.0	1079.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 81.1 to Attach 3 of App B; HS Ser # 81, SALTTI # 3 B 6D (S) - - C A Ser # 95, SALTTI # 3 A 8D (S)

Description: LOCATED BY 121.5/243 MHZ SHIP DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # 37)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205'/		46	2.0			3.62	30.0	
/								
/								
/								
			* (<u>92.0</u>)	(<u>28.2</u>)	(<u>10.2</u>)	(<u>166.5</u>)	(<u>30.0</u>)	<u>326.9</u>
Sp Eq:		8	2.0					<u>16.0</u>

Test Equip (_____); Initial Training (_____); Misc Costs (_____) GACI = 342.9

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of * (92.0) 9.2

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs (_____) GAOM = _____

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 0; LRG 10; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 82 to Attach 3 of App B; HS Ser # 82, SALTII # 3 B 6D (D) - - C-A Ser # 96, SALTII # 3 A 8D (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites		1	10000.0	10000.0	3500.0	10000.0	
Launches		1	10000.0	10000.0		10000.0	
Ground Stations		2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites		1	10000.0	10000.0		10000.0	
Launches		1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs ()

TOTAL

GACI =

113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)

TOTAL

815.0

GAOM =

1059.8

COMBINED TOTALS

Satellite Portion

GACI

GAOM

113210.0

1059.8

Terrestrial Portion

342.9

162.2

TOTAL

113553.0

1222.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 82.1 to Attach 3 of App B; HS Ser # 82, SALTTI # 3B6D (D) - - CA Ser # 96, SALTTI # 3A8D (D)

Description: LOCATED BY 121.5/243 MHZ SHIP DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # 37)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	#	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46		2.0			3.62	30.0	
/								
/								
/								
			*(92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9

Sp Eq: _____ 16.0

Test Equip (_____); Initial Training (_____); Misc Costs _____ (_____) GACI = 342.9

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of *(92.0) 9.2

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs _____ (_____) GAOM = 162.2

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____.

b. System Data: UUC = \$ 225 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 0; LRG 10; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 83 to Attach 3 of App B; HS Ser # 83, SALTII # 3 B 6E (S) - - CA Ser # 97, SALTII # 3 A 8E (S)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	2	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches							
				(26500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) 815.0

TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	2406.0	312.8
TOTAL	63986.0	1230.0

Encl 83.1to Attach 3 of App B; HS Ser # 83, SALT TI # 3 B 6E (S) - - CA Ser # 97, SALT TI # 3 A 8E (S)

Description: LOCATED BY VHF-FM SHIP DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # 34)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SSRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 40' / DF	403	1.3					
/VHF-FM Radio	403	2.541					
/							
/							
		* (1547.9)	(157.7)	(57.6)	(507.2)	(30.0)	2300.4
Sp Eq: _____	72	1.3					
							93.6

Test Equip (_____);	Initial Training (<u>12.0</u>);	Misc Costs _____	12.0
TOTAL			GACI = 2406.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = _____ 15 Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *(1547.9)

Recurring Training Cost (5.0); Landline Cost (); Misc Costs ()

TOTAL	312.8
GAOM =	312.8

2. User Cost Data

a. Quotation: Unit Cost \$ ____ (197 ____ \$) based on production of _____. Installation Cost \$ _____.

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____

b. System Data: $UUC = \$ \frac{425}{(1974 \$)}$; $QUAN = \frac{3000}{5}$; $NM = \frac{5}{88}$ percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

$\frac{20}{\text{CUP}} = \frac{20}{0}$; FUP = 0; AUP = 100;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 84 to Attach 3 of App B; HS Ser # 84, SALTITI # 3 B6E (D) - - CA Ser # 98, SALTITI # 3 A8E (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa. 244.8

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0) GAOM = 1059.8

TOTAL

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	2406.0	312.8
TOTAL	115616.0	1373.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 84.1 to Attach 3 of App B; HS Ser # 84, SALT TI # 3 B 6E (D) - - C A Ser # 98, SALT TI # 3 A 8E (D)

Description: LOCATED BY VHF-FM SHIP DF/HOMING

Remarks:

(For AL only: AO Ser #, LO Ser # 34)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Ves over 40' / DF	403	1.3						
/ VHF-FM Radio	403	2.541						
/								
			*(1547.9)	(157.7)	(57.6)	(507.2)	(30.0)	2300.4
Sp Ea:	72	1.3						93.6

Test Equip () ; Initial Training (12.0) ; Misc Costs () GACI = 2406.0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of *(1547.9) 154.8

Recurring Training Cost (5.0) ; Landline Cost () ; Misc Costs () GAOM = 312.8

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 425 (1974 \$) ; QUAN = 3000 ; NM = 5 ; LF = 88 percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 85 to Attach 3 of App B; HS Ser # 85, SALTII # 3 B 6 F (S) - - CA Ser # 99, SALTII # 3 A 8 F (S)

Description: EPRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	1	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches	1	1					
				(16500.0)	()	(20000.0)	(35080.0)
							61580.0

Test Equip () ; Initial Training () ; Misc Costs () ; GACI = 61580.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa. 102.0

Annual Maintenance Cost: 10 percent of * ()

Recurring Training Cost () ; Landline Cost (15.0) ; Misc Costs OE (800.0) 815.0

TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	342.9	162.2
TOTAL	61923.0	1079.0

Encl 85.1 to Attach 3 of App B; HS Ser # 85, SALTTI # 3 B 6E (S) - - CA Ser # 99, SALTTI # 3 A 8F (S)

Description: LOCATED BY UHF-AM SHIP DF/HOMING

Remarks: _____
(For AL only: AO Ser # _____, LO Ser # _____)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Unit	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
SRU/Component							
NMEC 205' /	46	2.0			3.620	30.0	
/							
/							
/							
*		(92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8	2.0					
							16.0

Test Equip (); Initial Training (); Misc Costs ()

TOTAL GACI = 342.9

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + $\frac{15}{15}$ = $\frac{15}{15}$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of * (92.0)

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs (_____)

	(<u> </u>)	
TOTAL		<u> </u>		
		<u>GAOM =</u>		<u>162.2</u>

2. User Cost Data

a. Quotation: Unit Cost \$ (197) based on production of . Installation Cost \$

Lease Cost \$ _____ (197 _____) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 86 to Attach 3 of App B; HS Ser # 86, SALTII # 3 B6F (D) - - C.A Ser # 100, SALTII # 3 A8F (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page)

(For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	Units	#	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1		10000.0	10000.0	3500.0	10000.0	
Launches	1		10000.0	10000.0		10000.0	
Ground Stations	2		2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1		10000.0	10000.0		10000.0	
Launches	1		5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
 TOTAL GAOM = 1059.8

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	342.9	162.2
TOTAL	113552.9	1222.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 86.1 to Attach 3 of App B; HS Ser # 86, SALTII # 3 B 6F (D) - - CA Ser # 100, SALTII # 3 A 8F (D)

Description: LOCATED BY UHF-AM SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser # 36)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46	2.0			3.620	30.0	
/							
/							
/							
		* (92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8	2.0					16.0

Test Equip (); Initial Training (); Misc Costs () GACI = 342.9

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of * (92.0) 9.2

Recurring Training Cost (); Landline Cost (); Misc Costs () GAOM = 162.2

TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.

ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;

CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 87 to Attach 3 of App B; HS Ser # 87, SALTII # 3 B 6G (S) - - CA Ser # 101, SALTII # 3 A 8G (S)
 Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 41, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost Included	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	12000.0	12000.0	Included	12000.0	
Launches	1	1	3250.0	6500.0	Included		
Ground Stations	2	2	8000.0	8000.0		8000.0	
On-Orbit Spare Satellites	1	1					
Launches	1	1					
				(26500.0)	()	(2000.0)	(35080.0)
							61580.0

Test Equip (); Initial Training (); Misc Costs () GACI = 61580.0
 TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 STA Units, 5 per Unit + 0 = 10 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
 TOTAL GAOM = 917.0

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	61580.0	917.0
Terrestrial Portion	342.9	162.2
TOTAL	61923.0	1077.2

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 87.1 to Attach 3 of App B; HS Ser # 87, SALTII # 3 B 6G (S) - - CA Ser # 101, SALTII # 3 A 8G (S)

Description: LOCATED BY VHF-AM SHIP DF/HOMING

Remarks: (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46		2.0			3.62	30.0	
/								
/								
/								
			*(92.0)	(28.2)	(10.2)	(166.5)	(30.0)	326.9
Sp Eq:	8		2.0					16.0

Test Equip (); Initial Training (); Misc Costs () GACI = 342.9
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = 15 Total personnel times \$10,200 pa. 153.0
Annual Maintenance Cost: 10 percent of *(92.0) 9.2
Recurring Training Cost (); Landline Cost (); Misc Costs () GAOM = 162.2
TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.
ARG 25 ; LRG 25 ; CM = 18985 ; FM = 10000 ;
CUP = 0 ; FUP = 0 ; AUP = 100 ;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 88 to Attach 3 of App B; HS Ser # 88, SALTTI # 3 B 6G (D) - - CA Ser # 102, SALTTI # 3 A 8G (D)

Description: EPIRB COMBINATION 121.5/243-406 MHZ ALERTS BY GEOSTATIONARY SATELLITE

Remarks: (Continued on next page) (For AL only: AO Ser # 42, LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost 7 Years	SUB-TOTAL
Mission Satellites	1	1	10000.0	10000.0	3500.0	10000.0	
Launches	1	1	10000.0	10000.0		10000.0	
Ground Stations	2	2	2500.0	5000.0	1500.0		
On-Orbit Spare Satellites	1	1	10000.0	10000.0		10000.0	
Launches	1	1	5000.0	5000.0		5000.0	
				(40000.0)	(5000.0)	(35000.0)	(68205.1)
							113210.0

Test Equip (); Initial Training (); Misc Costs () GACI = 113210.0

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 2 Units, 12 per Unit + 0 = 24 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * ()
 Recurring Training Cost (); Landline Cost (15.0); Misc Costs OE (800.0)
 TOTAL GAOM = 1059.8

COMBINED TOTALS

	GACI	GAOM
Satellite Portion	113210.0	1059.8
Terrestrial Portion	342.9	162.2
TOTAL	113553.0	1222.0

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 88.1 to Attach 3 of App B; HS Ser # 88, SALTTI # 3 B 6G (D) - - CA Ser # 102, SALTTI # 3 A 8G (D)

Description: LOCATED BY VHF-AM SHIP DF/HOMING

Remarks: _____ (For AL only: AO Ser # _____, LO Ser # 38)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
NMEC 205' /	46		2.0			3.62	30.0	
/								
/								
/								
			* (<u>92.0</u>)	(<u>28.2</u>)	(<u>10.2</u>)	(<u>166.5</u>)	(<u>30.0</u>)	<u>326.9</u>
Sp Eq:	8		2.0					<u>16.0</u>

Test Equip (_____); Initial Training (_____); Misc Costs _____ (_____) GACI = 342.9

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: _____ Units, _____ per Unit + _____ = 15 Total personnel times \$10,200 pa. 153.0

Annual Maintenance Cost: 10 percent of * (92.0) 9.2

Recurring Training Cost (_____); Landline Cost (_____); Misc Costs _____ (_____) GAOM = 162.2

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 _____ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____

b. System Data: UUC = \$ 425 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 25; LRG 25; CM = 18985; FM = 10000;

CUP = 0; FUP = 0; AUP = 100;

Encl 89 to Attach 3 of App B; HS Ser # 89, SALT TI # 3 B 7 A () -- C A Ser # 103, SALT TI # 3 A 9 A ()

Description: SURVIVAL 500 KHZ ALERTS SHORE STATION AND LOCATED BY SHORE DF

Remarks:

(For AL only: AO Ser # 11, LO Ser # 45)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$'000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /DF Ant & Eq	12	50.0			25.0		
/Remote	4	50.0			25.0		
/							
/							
		* (800.0)	()	()	(400.0)	()	1200.0

Sp Eq:

Test Equip (); Initial Training (); Misc Costs ()

TOTAL	GACI =	1200.0
--------------	--------	---------------

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: $\frac{12}{12}$ Units, $\frac{5}{5}$ per Unit + $\frac{10}{10}$ = $\frac{70}{70}$ Total personnel times \$10,200 pa. 714.0

Annual Maintenance Cost: 10 percent of * (800.0)	
80.0	

Recurring Training Cost (); Landline Cost (10.0); Misc Costs Mod (2.0) 12.0

TOTAL	<u>GAOM = 806.0</u>
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2. User Cost Data

a. Quotation: Unit Cost \$ (197) based on production of . Installation Cost \$

Lease Cost \$ _____ (197 _____ \$) per year. Installation Costs \$ _____ .

b. System Data: $\text{UUC} = \$ \frac{3000}{(1974 \$)}$; $\text{QUAN} = \frac{3651}{5}$; $\text{NM} = \frac{85}{85}$ percent.

ARG 27 ; LRG 20 ; CM = 18985 ; FM = 0 ;

CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 90 to Attach 3 of App B; HS Ser # 90, SALT TI # 3 B7B () - - CA Ser # , SALT TI # A ()

Description: SURVIVAL 8364 KHZ ALERTS AND LOCATED BY SHORE DF

Remarks:

(For AL only: AO Ser # 13, LO Ser # 46)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9		300.0			100.0		
/								
/								
/								
			*(2700.0)	()	()	(900.0)	()	3600.0

Sp Eq:

Test Equip (); Initial Training (); Misc Costs () GACI = 3600.0

TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 STA Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of *(2700.0)
 Recurring Training Cost (); Landline Cost (10.0); Misc Costs () GAOM = 841.0
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (1976 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.

ARG 25; LRG 20; CM = 18985; FM = 0;

CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 91 to Attach 3 of App B; HS Ser # 91, SALTII # 3 B8A () - - CA Ser # 105, SALTII # 3 A10A ()

Description: SURVIVAL 500 KHZ ALERTS SHORE STATION AND LOCATED BY AIRCRAFT DF/HOMING

Remarks: _____ (For AL only: AO Ser # 11, LO Ser # 47)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2 Xm 2 Rev	12	32.0				10.0		
/ Remotes	4	12.0						
ALL A/C / ARN-89	156	4.5		2.25	1.8	3.0	25.0	
			* (<u>1134.0</u>)	(<u>351.0</u>)	(<u>280.0</u>)	(<u>588.0</u>)	(<u>25.0</u>)	<u>2378.8</u>
Sp Eq: A/S	20	4.5						<u>90.0</u>

Test Equip (75.0); Initial Training (_____); Misc Costs _____ (_____) GACI = 2543.8

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 12 Units, 5 per Unit + 10 = 70 Total personnel times \$10,200 pa.
 Annual Maintenance Cost: 10 percent of * (1134.0)
 Recurring Training Cost (_____); Landline Cost (10.0); Misc Costs _____ (_____) GAOM = 837.4
 TOTAL

2. User Cost Data

a. Quotation: Unit Cost \$ _____ (197 \$) based on production of _____. Installation Cost \$ _____
 Lease Cost \$ _____ (197 \$) per year. Installation Costs \$ _____.
 b. System Data: UUC = \$ 3000 (1974 \$); QUAN = 3651; NM = 5; LF = 85 percent.
 ARG 27; LRG 20; CM = 18985; FM = 0;
 CUP = 100; FUP = 0; AUP = 0;

Encl 92 to Attach 3 of App B; HS Ser # 92, SALT# 3 B 8B () - - CA Ser #106, SALT# 3 A 10B ()

Description: SURVIVAL 2182 KHZ ALERTS SHORE STATION AND LOCATED BY AIRCRAFT DF/HOMING

Remarks:

(For AL only: AO Ser # 12, LO Ser # 48)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Great Lakes	#	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta / Lakes x 4/3		80	7.0					
All A/C / ARN-89		156	4.5	2.25	1.8	3.0	25.0	
/								
/								
			* (1448.7)	(351.0)	(280.0)	(468.0)	(25.0)	2572.9
Sp Eq: x 4/3		8	7.0					
AS ARN-89		20	4.5					164.9

Test Equip (75.0); Initial Training (); Misc Costs) 75.0
TOTAL GACI = 2812.8

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: $50 \times \frac{4}{3}$ Units, $\frac{5}{3}$ per Unit + $\frac{0}{3} = 333.3$ Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of $\frac{702}{702} + \frac{16 \times 4}{3}$

91.2

Recurring Training Cost () ; Landline Cost (192 x 4/3)

TOTAL
GAOM = 3747.2

2. User Cost Data

a. Quotation: Unit Cost \$ ____ (197__ \$) based on production of _____. Installation Cost \$ _____

Lease Cost \$ _____ (197 _____) per year. Installation Costs \$ _____

b. System Data: $UUC = \$ \frac{900}{(1974 \$)}$; $QUAN = \frac{3000}{}$; $NM = \frac{6}{}$; $LF = \frac{88}{}$ percent.

ARG 37 ; LRG 32 ; CM = 18985 ; FM = 10000 ;

CUP = 10 ; FUP = 90 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 93 to Attach 3 of App B; HS Ser # 93, SALTII # 3 B8C () - - CA Ser # , SALTII # A ()

Description: SURVIVAL 8364 KHZ ALERTS AND LOCATED BY AIRCRAFT DF/HOMING

Remarks: (For AL only: AO Ser # 13, LO Ser # 49)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	156	300.0	1.5	1.2	100.0	25.0	
All A/C /			3.0			1.0		
/								
/								
Sp Eq: AS	20		3168	234.0	187.2	1056.0	25.0	4670.2
			3.0					60.0

Test Equip (75.0); Initial Training (); Misc Costs () GACI = 75.0
TOTAL 4805.2

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 9 STA Units, 5 per Unit + 10 = 55 Total personnel times \$10,200 pa. 561.0
Annual Maintenance Cost: 10 percent of *(3168) 316.8
Recurring Training Cost (); Landline Cost (10.0); Misc Costs () GAOM = 10.0
TOTAL 887.8

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (197 6 \$) based on production of 1st Unit. Installation Cost \$ Incl

Lease Cost \$ (197 \$) per year. Installation Costs \$.

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000 ; NM = 5 ; LF = 88 percent.

ARG 25 ; LRG 20 ; CM = 18985 ; FM = 0 ;

CUP = 0 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 94 to Attach 3 of App B; HS Ser # 94, SALTII # 3 B9A () - - C.A Ser # 107, SALTII # 3 A 11A ()

Description: SURVIVAL 500 KHZ ALERTS SHORE STATION AND LOCATED BY SHIP DF/HOMING

Remarks: (For AL only: AO Ser # 11, LO Ser # 50)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta / 2 Xm 2 Rev	12	32.0			10.0		
/ Remotes	4	12.0					
/ DF, Xmtr	196	12.0	6.0	4.8	8.544	60.0	
/ Coup, Ant	196	4.0	1.5	1.2			
		*(3568.0)	(1470.0)	(1176.0)	(1794.6)	(60.0)	8068.6
Sp Eq:	32	16.0					512.0

Test Equip () ; Initial Training (50.0) ; Misc Costs () GACI = 50.0
TOTAL 8630.6

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.

Annual Maintenance Cost: 10 percent of *()

Recurring Training Cost () ; Landline Cost () ; Misc Costs ()

TOTAL GAOM = 1241.8

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 3000 (1974 \$); QUAN = 3651 ; NM = 5 ; LF = 85 percent.

ARG 27 ; LRG 10 ; CM = 18985 ; FM = 0 ;

CUP = 100 ; FUP = 0 ; AUP = 0 ;

SYSTEM PARAMETER DATA SHEET (Terrestrial)

Encl 95 to Attach 3 of App B; HS Ser # 95, SALTTI # 3 B9B () - - CA Ser # 108, SALTTI # 3 A11B ()

Description: SURVIVAL 2182 KHZ ALERTS SHORE STATION AND LOCATED BY SHIP DF/HOMING

Remarks:

(For AL only: AO Ser # 12, LO Ser # 51)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

SRU/Component Great	#	Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Remote Sta. /Lakes x 4/3	80		7.0					
Vessels 32' / DF	196		5.0	2.5	2.0	2.544	30.0	
/TCV,Cpl,Ant	196		8.3	4.15	3.32	1.2	30.0	
			* (3353.5)	(1303.4)	(1042.7)	(733.8)	(60.0)	6493.0
Sp Eq: x 4/3	8		7.0					
	32		13.3					500.3

Test Equip (); Initial Training (50.0); Misc Costs () GACI = 50.0
TOTAL 7043.3

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: 50x4/3 Units, 5 per Unit + 15 = 348.3 Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * (1606.8) + 16 x 4/3
Recurring Training Cost (8.0); Landline Cost (192.0x4/3); Misc Costs ()
TOTAL GAOM = 4099.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$

Lease Cost \$ (197 \$) per year. Installation Costs \$

b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 6; LF = 88 percent.

ARG 37; LRG 32; CM = 18985; FM = 10000;

CUP = 10; FUP = 90; AUP = 0;

Encl 96 to Attach 3 of App B; HS Ser # 96, SALTTI # 3 B 9C () - - CA Ser # , SALTTI # A ()

Description: SURVIVAL 8364 ALERTS AND LOCATED BY SHIP DF/HOMING

Remarks: _____
(For AL only: AO Ser # 13, LO Ser # 52)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$'000)

SRU/Component	# Units	Unit Cost	Sp MA Cost 50%	Sp Comp Cost 40%	Installation Cost	Document Cost	SUB-TOTAL
Radio Sta /	9	300.0			100.0		
Ves over 82' /	196	5.0	2.5	2.0	1.7	30.0	
/							
/							
* (	32	3680.0)	(490.0)	(392.0)	(1233.2)	(30.0)	5825.2
Sp Eq:		5.0					
							160.0
Test Equip () ; Initial Training (50.0) ; Misc Costs ()							50.0
TOTAL						GACI =	6035.2

2. User Cost Data

a. Quotation: Unit Cost \$ 4500 (197 6 \$) based on production of 1st Unit.
Lease Cost \$ (197) \$) per year. Installation Costs \$ ()
b. System Data: UUC = \$ 900 (1974 \$); QUAN = 3000; NM = 5; LF = 88 percent.
ARG 25; LRG 20; CM = 18985; FM = 0;
CUP = 0; FUP = 0; AUP = 0;

SYSTEM PARAMETER DATA SHEET (Satellite)

Encl 97 to Attach 3 of App B; HS Ser # 97, SALTII # 3 B10A() - - CA Ser # , SALTII # A ()

Description: EPIRB 121.5/243 or 406 MHZ ALERTS BY SATELLITE LOCATED BY ORBIT SAT DOPPLER

Remarks: NASA est 1a. 1b given in 1976\$ (For AL only: AO Ser # , LO Ser #)

1. Government Cost Data

a. Acquisition and Installation Cost Data (1974 \$000)

	#	Units	Unit Cost	AC&I Cost	RDT&E Cost	Repl Cost	SUB-TOTAL
Mission Satellites	1	1	17000/1.15	14782.6		Years	
Launches							
Ground Stations	2	2	1500/1.15	2608.7			
On-Orbit Spare Satellites							
Launches							
				(17391.3)	()	()	17392.0

Test Equip () ; Initial Training () ; Misc Costs () GACI = 17392.0
TOTAL

b. Annual Recurring Operation and Maintenance (O&E) Cost (1974 \$000)

Personnel: Units, per Unit + = Total personnel times \$10,200 pa.
Annual Maintenance Cost: 10 percent of * () Flight System 1.5/1.15
Recurring Training Cost () ; Landline Cost () ; Misc Costs Grnd (1.0/1.15)
TOTAL GAOM = 2174.0

2. User Cost Data

a. Quotation: Unit Cost \$ (197 \$) based on production of . Installation Cost \$
Lease Cost \$ (197 \$) per year. Installation Costs \$
b. System Data: UUC = \$ 250 (1974 \$); QUAN = 3000 ; NM = 8 ; LF = 88 percent.
ARG 0 ; LRG 999 ; CM = 18985 ; FM = 10000 ;
CUP = 0 ; FUP = 0 ; AUP = 100 ;